Cover

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Buried Secrets

Activists Fear a Landfill Near Canton May Contain Illegally Dumped Radioactive Waste.
By Greg M **Schwartz**

It was the winter of 1969-70 and 41-year old Charles Kittinger was co-owner/operator of the Industrial Excess Landfill in Uniontown, Ohio, which mainly took waste from Akron-area rubber companies. But one winter's day, a truck arrived accompanied by two cars with military personnel. They told Kittinger they were depositing metal "eggs" containing Plutonium 238 and that they would be safe to bury there.

"Someone had called in advance and asked if they could dump them, and I said I think it's permissible since it's metal," says Kittinger, now 78. "I witnessed two eggs being dumped. They said they'd be safe as long as no one tried to cut into them. One of them said that in 30 years they'd be dissipated and there wouldn't be any radiation left in them."

One of the men in an Army uniform instructed Kittinger never to mention the eggs to anyone. "They hung around for awhile, got a receipt and left."

In 1983, homemaker and grade-school teacher Chris Borello was at a neighbor's house making crafts for a children's hospital when she mentioned an ABC News story about low-level toxic contaminants. Borello, who lived in Uniontown, had been surprised to see nearby North Canton cited in the story. The neighbor said that she'd been drinking only bottled water due to longstanding rumors about the nearby dump, the Industrial Excess Landfill (IEL).

Borello later called the Environmental Protection Agency to start asking questions. She never imagined she'd still be searching for answers 23 years later.

Borello helped found Concerned Citizens of Lake Township (CCLT) to try to find out what threat IEL might pose. (The unincorporated Uniontown falls within Lake Township.) She'd rather be tending the horses on her farm, but she's dug up too much dirt on IEL to let her investigation go. Her group's tireless pursuit over the years has yielded reams of government documents and discrepancies that cast doubt on the EPA's conclusions about the landfill.

Located about halfway between Akron and Canton, IEL is a "Superfund" site, part of a federal program established in 1980 to identify and clean up the worst toxic waste dumps around the country. The site received around 1 million gallons of toxic waste from Akron-area rubber companies between 1966 and 1980. In Superfund cleanups, the parties responsible for the polluting (PRPs) are held liable. For IEL, this includes Goodyear, Bridgestone/Firestone, B.F. Goodrich and GenCorp.

But CCLT and others believe that the U.S. military also secretly contributed radioactive Cold War nuclear weapons waste to the dump.

Kittinger's testimony before federal Judge John Manos led to an eight-month Department of Justice probe in 2001 which dismissed Kittinger's claims, but CCLT says Kittinger was smeared. The DOJ

probe admitted that magnetic resonance imaging tests had found oblong shapes, but labeled them simply "anomalies."

Greg Coleridge, Northeast Ohio's director of the American Friends Service Committee (AFSC), has received documents through the Freedom of Information Act that indicate dumping at IEL by the Army.

"The Army documents consisted of about two dozen dump receipts that said "Army waste.' Although the Army denied for the longest time they dumped anything, this proved it," says Coleridge.

According to EPA Region 5 senior attorney Tim Thurlow, the Army dump receipts Coleridge got say "Ohio Army National Guard" on them, and simply refer to standard waste from a National Guard facility near the Akron airport. But Coleridge responds that not all of them say National Guard, and that some of them just say Army. Kittinger agrees that the National Guard was a regular customer, but not the deliverers of the plutonium eggs. "It was the Army, not the National Guard," says Kittinger.

Borello says EPA has never seemed interested in determining exactly what's in the dump, but only whether the site and its radiation levels comply with government requirements. CCLT believes EPA has gone out of its way to manipulate or ignore test data to make sure that IEL complies.

Dr. Julie Rice, an adjunct professor in the Department of Food, Agriculture and Biological Engineering at Ohio State University and a CCLT adviser, believes contaminants from the landfill could potentially be leaking into the water supply of 600,000 Ohioans.

"It's really not a landfill, it's a sandy gravel pit," said Rice at a May 23 community meeting in Uniontown. "The landfill sits at the top of a water table, so water that hits there is drawn toward the surrounding community wells."

Citing the U.S. Geological Survey, Rice says that the rate of flow there is up to six feet per day. She said this could impact the Tuscarawas River **buried** valley sole source aquifer system that expands into 13 Ohio counties and is used by 600,000 people. (An aquifer is a water-bearing rock that readily transmits water to wells and springs.)

There is also concern that EPA's tactics at IEL could have national ramifications. Borello believes IEL has been used as "the poster child for bad scientific practices for other [radioactive] sites around the country." Her concerns are backed up by the admission of EPA's Thurlow regarding the Scientific Advisory Board (SAB) that was convened to make recommendations for the landfill in the early '90s.

"As far as EPA is concerned, we thought that the radiation issue had been laid to rest when the SAB had issued its report [in 1994]," says Thurlow. "The SAB came to the conclusion that there was no good reason to think that there was any radioactive contamination in the landfill. [It] was a blue-ribbon panel made up of scientists who were academics, who are eminent experts. They took that as part of a larger charge, which was to advise the agency about how it should handle radiation problems or issues at Superfund sites in general. They looked at IEL as a case in point."

The SAB was formed after a recommendation by Thomas Grumbly, president of Clean Sites Inc., a nonprofit organization dedicated to solving America's hazardous waste problem. But before the SAB could even do its work, Grumbly (who went on to become President Bill Clinton's choice for the Department of Energy's Assistant Secretary for Environmental Management) declared that the SAB panel would be "inadequate" because it did not have subpoena power to get to the bottom of what happened between EPA and commercial labs. Grumbly cited previously withheld data from tests on IEL samples by the Controls for Environmental Pollution (CEP) Lab in New Mexico (which CCLT has since learned contained reports of plutonium and tritium). EPA had ruled the tests invalid. CEP's James Mueller says EPA had dictated biased procedures in the lab's contract.

"We were right and they were wrong," said Mueller in 2005. "They [management] gave us the methods they wanted us to use, and we didn't agree, but did it anyway. They weren't approved EPA methods ... and so we put a disclaimer on it, and then got blamed when they said the results weren't right, because we found positive test results [of plutonium]."

Whether SAB members knew any of this isn't clear; nor is it clear what they would have done with the information. Four of the eight panelists told **Free Times** that they were not qualified to comment on radiation testing methods. Of the other four, one is dead, and another claims he was only there to review data and had "nothing to do with making recommendations" for the report.

Borello calls this revelation about the SAB's members "crucial," because their report "has been repeatedly used by EPA for over a decade to not only dismiss independent experts' concerns regarding IEL radiation, but cited as an example to gear testing conducted at other sites around the country suspected of containing radiation."

And it relates directly to a key dispute between EPA and CCLT: the use of "EPA Method 900 for Finished Drinking Water," which the SAB report condoned to screen for radiation in raw, untreated water samples from IEL.

In an April letter to EPA Administrator Steve Johnson, Coleridge noted that the samples collected in 1992-93 were filtered, which can remove some of the particles, and that 2001-02 samples were not preserved with acid, a failure that "can compromise the integrity of the particle phase of water samples. It is in this phase that one would expect to find plutonium, for instance, if it were present in ground water."

"The "preservation' of water samples by acidification to avoid hydrolysis and loss of plutonium is a very elementary concept and has been performed for years," explains Dave Sill, a radiochemist with the U.S. Department of Energy. "Plutonium is extremely insoluble in natural unacidified water samples. In order to keep it soluble for analysis, the solution must be acidified. There is much experimental data that shows a laboratory's inability to detect plutonium in an unacidified water sample, even though it was there. Analyzing unacidified water samples for plutonium is not scientifically defensible." Sill also says that samples should be acidified as soon as possible to avoid conditions in which plutonium could go undetected.

Even SAB member Dr. Norman Cutshall agrees that samples must be acidified. Before he retired, Cutshall was an environmental scientist who specialized in the measurement of environmental radioactivity.

"The procedure specifies addition of nitric acid to prevent loss of radionuclides to container walls," concedes Cutshall of the 900 Method. "Thus, analysis of acidified samples will detect leached radionuclides along with dissolved radionuclides. Filtering a sample without acidification removes particles and radionuclides bound to particles. Unless the particles themselves are analyzed, there is no way of knowing what was removed."

Still, Cutshall maintains that "the 900 Method is an excellent screening tool and appropriate for surveys such as [IEL]" and that "any contaminant that could travel tens or hundreds of meters in ground water flowing through soils and rocks is exceedingly unlikely to be totally lost to container walls with or without acidification."

But Cutshall's admission that the 900 Method specifies preservation of samples via acidification stands in contrast to documentation from Sharp and Associates, a company hired by the rubber companies to do another round of testing in 2000-'01 at IEL.

An August 9, 2000 letter from Sharp to EPA Region 5 headquarters in Chicago indicates that samples

were taken from wells "without filtering or preservation." A March letter from Superfund Division Director Richard C. Karl to Borello claims that the samples were "preserved in a 16 to 48 hour time-frame from collection" and that the effect of such a time lapse would be "negligible."

DOE's Sill says it's routine to acidify water samples in the field. If acidifying later, the most important factor is the level of scientific rigor used to re-dissolve the insoluble form of the plutonium.

Borello says it's this rigor, or potential lack thereof, that most concerns CCLT. She cites Sill's testimony as part of a consensus among other government agencies on the matter. After she sent a letter of complaint about EPA's tactics to the Nuclear Regulatory Commission, NRC's Guy Caputo sent an April letter to EPA's Stephen Nesbitt, assistant inspector general for investigations. Caputo cited NRC staff notes indicating that tests on non-acidified samples that have been filtered will generally underestimate the actual amount of plutonium present.

Borello and Coleridge both point out that the 1992-'93 samples were filtered, and the 2000-'01 samples were not acidified in the field.

"It's time for U.S. EPA to get on the same page scientifically with DOE and NRC and use better methods to detect manmade nuclear materials that may be leaking out of Superfund sites to insure that U.S. groundwater is being properly monitored and protected," says Borello.

And as if the debate over testing methods weren't enough to raise concerns, Cutshall says that the SAB was never told of possible plutonium dumping at IEL (The panel's work preceded Kittinger's coming forward).

"We did not hear testimony regarding plutonium 238 dumping at IEL," says Cutshall. "The statement should be followed up and, had we heard the statement, we would ask questions. Surely you would want to know when, how much and in what form the alleged plutonium was contained."

A September 29, 2004 report from the U.S. EPA Ombudsman/Inspector General concluded that "sufficient action was taken at IEL" regarding radiation, yet also admitted the presence of plutonium in several monitoring wells.

"The plutonium concentration in the groundwater samples [at IEL] is about 1,000 **times** higher than other natural systems," says Dr. Mark Baskaran, an associate professor of geology at Wayne State University in Michigan and another of CCLT's scientific advisers.

Baskaran sees a 0.26 picocuries per liter finding of plutonium at IEL, listed in the 2004 IG report, as particularly troubling. To put the number in perspective, he cites levels reported at the Nevada Test Site, home of the government's original nuclear tests, where the range found in migrating groundwater was from 0.2 to 0.5 â€” following detonation of over 800 bombs.

CCLT also finds the 0.26 troubling in comparison with the 0.15 legal cut-off for plutonium in surface/groundwater that necessitated a government cleanup at the Rocky Flats site in Colorado, a former weapons production facility of the Atomic Energy Commission.

"Why is Ohio allowed to have lower protective health standards than Colorado?" wonders Borello.

Thanks to the Freedom of Information Act, it has recently been learned that Baskaran's concerns caused some consternation from the rubber companies.

The AFSC's Coleridge filed a FOIA request in 2005 to find out what information EPA's National Air and Radiation Environmental Laboratory (NAREL) in Alabama had on IEL, since NAREL has also been involved in analyzing IEL samples. The FOIA request yielded an e-mail conversation between Dr. John Frazier of Auxier, a radiation consultant hired by the rubber companies, and Paul Wolford, a public relations specialist retained by Goodyear. In an October 2001 message, Wolford wrote to Frazier

that Baskaran was "contacted by the citizen's group regarding the [plutonium] issue and offered them hope that they might find some. [T]his gentleman has the potential to create some real problems."

Another issue in the 2004 IG report is the potential finding of technetium 99 (Tc-99), a nuclear fission material, in tests by the rubber companies in 2001. CCLT says this contradicts EPA claims over the years that radiation found at IEL is naturally occurring.

"If you read the report, it clearly states that there is no credible data to suggest technetium in groundwater at the site," said the Ohio EPA's Rodney Beals in a 2005 interview. Beals and co-worker Larry Antonelli downplayed suggestions of dangerous levels of radioactivity at IEL. Both work in the Division of Emergency & Remedial Response, Beals as environmental manager and Antonelli as site coordinator. But the report's conclusion, authored by Canadian scientist Melvyn Gascoyne, is less than definitive.

Gascoyne wrote that the concentrations of Tc-99 in the data set "are a function of imprecise measurement," but added that more precise methods should be used. In his expert opinion, most of the concern regarding the possible presence of radioactive waste at the site remained unresolved following the 2000-'01 samplings.

Michael Ketterer, a scientific adviser to CCLT who is an associate professor of chemistry and biochemistry at Northern Arizona University as well as a past employee of the EPA's Office of Enforcement, supports CCLT's concerns about plutonium and is particularly troubled by findings of Tc-99.

"Tc-99 doesn't occur in nature in significant amounts, it comes from the nuclear fission process," says Ketterer. "It's well known that in the '50s and '60s, there was uranium used in DOE programs that contained Tc-99 Å and that Tc-99 is a good indicator of manmade uranium. If present, it would almost certainly point to man-made radioactivity. It indicates something **buried** in there that could be a long-term threat."

With a Department of Energy grant of $50,000 last year, CCLT's experts collected several water samples from offsite private wells surrounding IEL and identified low levels of Tc-99 in all wells sampled in two separate rounds. Ketterer also cited the presence of uranium 236 in well samples from IEL, an isotope he says is "almost nonexistent in nature." Ketterer and Baskaran both chastise EPA for not using mass spectrometry to gauge samples, a process used at DOE labs to count atoms to measure isotope deviations.

"The only thing I can make of it is that they don't want to know," says Ketterer. "Plutonium is found in tiny amounts in nature. However, when you find it, it almost always has to do with testing of nukes. It would be extremely unusual to find it in the levels EPA has reported in the groundwater at IEL."

Ohio EPA disputes both its presence at IEL and EPA's ability to even detect it.

"Four rounds of samples were taken in 2000-'01 and only one had a potential detection," says Beals. "The results were so low, you couldn't distinguish it from background. So conservatively, NAREL said it's a potential detection." Beals also said "there really aren't any reliable methods to determine if low levels of plutonium are there [at IEL]."

"I don't think that's accurate," responds Ketterer. "The technology is fairly well developed. If they really wanted to know the answer, they could engage DOE labs. In terms of research labs, it's completely possible." Claims to the contrary, he adds, are "as credible as hearing from the many students who bring me "my dog ate my homework' excuses."

"This is not just garden-variety technical incompetence on EPA's part, it is scientific and regulatory fraud."

EPA has frequently cited an October 2001 NAREL plutonium review of the samples taken in 1992-'93 and in 2000-'01. CCLT got a copy of that report after it was sent to Ohio Rep. Scott Oelslager (R-51st) by Ohio EPA in response to his inquiries on CCLT's behalf. The report revealed that 34 filter samples from 1992-'93 showed "possible plutonium detections," and that tests from 2000-'01 also showed "potential" plutonium, but that "there is not enough information to confirm or deny."

"This report admitted dozens of potential findings of plutonium in IEL groundwater," says Borello. "We are particularly troubled that IEL well #26i showed "possible' plutonium in 2000, but then was allowed to be sealed, along with 32 other monitoring wells. These wells are the windows to what those tons of toxins are doing. CCLT believes this may have constituted destruction of criminal evidence."

Ohio State's Dr. Julie Rice also takes issue with the sealing of the wells.

"I am never an advocate of sealing a well, unless it's really damaged," says Rice. "And then it should be replaced. Once you seal it, you can't check it again. You're making the assumption that you know everything you should know about the site."

Ohio EPA's Antonelli says it's common to close some wells during the cleanup stage and that the ones closed were abandoned because they had "compromised structural integrity." But Rice â€" who was originally brought in by Lake Township trustees in 1999 â€" brought her biological engineering class to study IEL for several years thereafter because "it's a perfect example of screw-ups. They don't have a system set up to adequately address the problems of the site, and that's why we used it as a teaching tool, because it's such a good example of what not to do."

CCLT also notes that the NAREL review had no letterhead or signatures. Borello was told by congressional aides that such a document has no more legal value than a "blank piece of paper."

In the fall of 2005, questions about the document led Region 5's Fischer to refer the matter to John Griggs, chief of NAREL's Monitoring and Analytical Services Branch. Griggs traced the report to Scott Telofski, one of NAREL's technical experts.

The name was familiar to Borello. Upon sifting back through her files, she came upon an April 1998 letter from the Department of Health and Human Services' Agency for Toxic Substances and Disease Registry (ATSDR). The letter addressed several CCLT concerns, including technetium-99, but claimed that technical experts had been consulted and that nothing had changed ATSDR's conclusion that IEL "poses no apparent public health hazard." One of the experts consulted was Telofski, the unnamed author of the controversial 2001 plutonium review. CCLT fired off a letter to the Department of Justice that raised several new questions.

"This information may well be connected, as the decisions made on our case appear to keep reverting back to the same people and same reports that were (or should have been) used on the Kittinger case involving [the Department of] Justice," wrote CCLT. "We are greatly concerned that the former Assistant Surgeon General, Dr. Barry Johnson, was misled by this consult as well as other officials. Was false information knowingly given to Dr. Johnson to prevent him from re-activating his agency's involvement Å by keeping IEL listed as inactive at ATSDR that year [1998]?"

CCLT's letter also asks why the claim was made in 1998 that "no fission products" were ever detected by EPA or private labs involved with IEL. Borello says that to CCLT's knowledge, no specific tests for Tc-99 were performed until 2000, when indeed a possible detection was found.

"I don't recall doing any formal assessments," Telofski says in an interview, regarding conclusions about Tc-99 in the 1998 consult. "Probably what that was was nothing more than a discussion with one of [ATSDR's] senior health physicists. To be honest, I don't even recall if we discussed Tc-99."

Telofski admits that it's "probably true" that no specific tests for Tc-99 were done for the 1998 consult.

Allegations that politics sometimes trump science have dogged the EPA for years.

In 2002, EPA scientist J. William Hirzy issued a report on scientific integrity in a regulatory context and wrote that such integrity was an "elusive ideal at EPA." In the early '80s, Hirzy helped form an employees' union at EPA headquarters to combat distorted use of science.

It took almost two decades to sway some senior EPA managers to establish professional ethics for EPA scientists, now called the Principles of Scientific Integrity. But true integrity remained "elusive"; Hirzy's report cited an incident in which a supervisor told a member of the union's bargaining unit, "It's your job to support me, even if I say 2+2=7."

"By and large, I think the science at EPA is done honestly," Hirzy says today. "The management is another issue. They may order a document that simply ignores some science."

EPA's Region 5 lab was singled out for criticism in 2000 when Bonner R. Cohen, former editor of EPA Watch, reported on lax security at the lab, which was raided by investigators and temporarily shut down.

"Regional EPA offices are actually fiefdoms â€” they operate in many respects independently of EPA headquarters," says Cohen. "More often than not, there is a lack of any adult supervision. Typical of bureaucracy, when there's a screw-up, the culture is first and foremost, "Let's cover it up.' If adverse press is generated, "Let's find a convenient scapegoat.'"

CCLT has sent several letters to current EPA Administrator Steven Johnson this year, raising the new questions about decisions at IEL and requesting a fresh review. But Johnson's office keeps referring the matter back to EPA's Region 5 office in Chicago. Due to recently announced cutbacks at EPA, CCLT feels that getting a fresh review and cleanup of IEL is becoming a now-or-never proposition.

A June memo from EPA Chief Financial Officer Lyons Gray to agency leadership declared the agency has plans for closing 10 percent of its network of labs and research centers. A press release from Public Employees for Environmental Responsibility (PEER) â€” a national alliance of local, state and federal resource professionals â€” stated that this would affect "much of the agency's basic and applied science concerning pollution monitoring, toxicological effects and other public health issues."

EPA also recently announced the closing of its Headquarters Library to the public, as well as its own staff, effective October 1. "EPA is busily crating up and locking away its institutional memory," said PEER Executive Director Jeff Ruch in a press release, noting that more than 10,000 EPA scientists and other specialists are protesting the library closures as hindering their ability to do their jobs.

Borello believes that the situation at IEL is a microcosm of corruption that plagues the U.S. government from "Washington to the Heartland, from Nigerian yellowcake down to the local landfill." President Bush's 2005 proposal to build more nuclear power plants has CCLT more concerned than ever about the national ramifications of the situation at IEL.

"How can we trust the government to build more nuclear plants when the evidence shows we can't properly and honestly deal with the radioactive waste that has already been generated?" asks Borello. "Given the inherent loopholes and what has occurred at IEL, we believe that unless EPA changes its policy and adopts methods with more sensitive detection limits Å sites like IEL will continue to fall through the cracks forever, posing potential health threats to Americans wherever nuclear waste may be leaking radiation that goes undetected."

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BY THE LETTERS

AFSC American Friends Service Committee

ATSDR Agency for Toxic Substances and Disease Registry
(part of the U.S. Department of Health and Human Services)
CCLT Concerned Citizens of Lake Township
DOE (U.S.) Department of Energy
EPA (U.S.) Environmental Protection Agency
FOIA Freedom of Information Act
IEL Industrial Excess Landfill
IG Inspector General (in this case, of the EPA)
NAREL National Air and Radiation Environmental Laboratory (part of the EPA)
NRC Nuclear Regulatory Commission
PEER Public Employees for Environmental Responsibility
SAB Scientific Advisory Board
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