

# The Nuclear Tourist

George Johnson

## BACKGROUND

On April 26, 1986, during a routine test, a power surge caused an explosion in one of the reactors at the Chernobyl Nuclear Power Plant in Pripyat, Ukraine. To date, the Chernobyl incident is the worst nuclear power plant disaster in history, exceeding other incidents such as the 1979 Three Mile Island disaster in Pennsylvania. The Chernobyl explosion is one of only two incidents that have been classified as Level 7 events on the International Nuclear Event Scale, the highest possible rating in terms of destruction.

SCAN FOR  
MULTIMEDIA 

1 **T**hey say that five sieverts of radiation is enough to kill you, so I was curious to see the reading on my Russian-made dosimeter<sup>1</sup> as our tour van passed into the exclusion zone—the vast, quarantined wilderness that surrounds Chernobyl. Thick stands of pines and birches crowded the roadside as our guide reminded us of the ground rules: Don't pick the mushrooms, which concentrate radionuclides, or risk letting the contaminants into your body by eating or smoking outdoors. A few minutes later we passed the first of the abandoned villages and pulled over to admire a small band of wild Przewalski's horses.<sup>2</sup>

NOTES

1. **dosimeter** (doh SIHM uh tuhr) *n.* device used to measure the total absorbed dose from radiation exposure.
2. **Przewalski's** (shuh VOL skeez) **horses** endangered wild horses native to central Asia.

Mark context clues or indicate another strategy you used that helped you determine meaning.

**macabre** (muh KAH bruh) *adj.*

MEANING:

- 2 Twenty-eight years after the explosion of a nuclear reactor at Chernobyl, the zone, all but devoid of people, has been seized and occupied by wildlife. There are bison, boars, moose, wolves, beavers, falcons. In the ghost city of Pripyat, eagles roost atop deserted Soviet-era apartment blocks. The horses—a rare, endangered breed—were let loose here a decade after the accident, when the radiation was considered tolerable, giving them more than a thousand square miles to roam.
- 3 I glanced at my meter: 0.19 microsieverts per hour—a fraction of a millionth of a single sievert, a measure of radiation exposure. Nothing to worry about yet. The highest levels I had seen so far on my trip to Ukraine were on the transatlantic flight from Chicago—spikes of 3.5 microsieverts per hour as we flew 40,000 feet over Greenland, cosmic rays penetrating the plane and passengers. Scientists studying Chernobyl remain divided over the long-term effects of the radiation on the flora and fauna. So far they have been surprisingly subtle. More threatening to the animals are the poachers, who sneak into the zone with guns.
- 4 A few minutes later we reached Zalesye, an old farming village, and wandered among empty houses. Broken windows, peeling paint, crumbling plaster. On the floor of one home a discarded picture of Lenin<sup>3</sup>—pointy beard, jutting chin—stared sternly at nothing, and hanging by a cord on a bedroom wall was a child’s doll. It had been suspended by the neck as if with an executioner’s noose. Outside, another doll sat next to the remains of a broken stroller. These were the first of the **macabre** tributes we saw during our two days in the zone. Dolls sprawling half dressed in cribs, gas masks hanging from trees—tableaux placed by visitors, here legally or otherwise, signifying a lost, quiet horror.
- 5 Farther down the road we were surprised by an inhabitant. Dressed in a scarf, a red sweater, and a winter vest, Rosalia is one of what officials call the “returnees”—stubborn old people, women mostly, who insist on living out their lives in the place they call home. She seemed happy for the company. Prompted by our guide, she told us of worse hardships. The lands around Chernobyl (or Chornobyl, as it is known in Ukraine) are part of the Pripyat Marshes on the eastern front, where the bloodiest battles of World War II were fought. She remembers the German soldiers and the hardships under Stalin.<sup>4</sup>
- 6 “You can’t see radiation,” she said in Ukrainian. Anyway, she added, she is not planning to have children. She lives with five cats. Before we departed, she showed us her vegetable garden and said her biggest problem now is Colorado potato bugs.

3. **Lenin** (LEHN ihn) Vladimir Lenin (1870–1924), leader of the Russian Communist revolution of 1917 and first premier of the Soviet Union.

4. **Stalin** (STAH lih) Joseph Stalin (1879–1953), leader of the Soviet Union from 1922 to 1953. Under Stalin’s rule, the Soviet Union became a world power, but millions of people were imprisoned in labor camps, died from famine, or were executed.



7 There is something deeply rooted in the human soul that draws us to sites of unimaginable disaster. Pompeii, Antietam, Auschwitz, and Treblinka—all **eerily** quiet now. But in the 21st century we hold a special awe for the aftermath of nuclear destruction. The splitting of the atom almost a hundred years ago promised to be the most important human advance since the discovery of fire. Unleashing the forces bound inside atomic nuclei would bring the world nearly limitless energy. Inevitably it was first used in warfare, but after Hiroshima and Nagasaki<sup>5</sup> a grand effort began to provide electricity “too cheap to meter,” freeing the world from its dependence on fossil fuels.

8 More than half a century later the swirling symbol of the atom, once the emblem of progress and the triumph of technology, has become a bewitching death’s-head, associated in people’s minds with destruction and Cold War fear. Every spring visitors head for Stallion Gate in southern New Mexico for an open house at Trinity Site, where the first atomic bomb was detonated—a preview of what was to come when the bombers reached Japan. Monthly tours to the Nevada Test Site in the Mojave Desert, where more than a thousand nuclear weapons were exploded during the Cold War, are booked solid through 2014.

9 Then there is the **specter** of nuclear meltdown. In 2011, Chernobyl, site of the world’s worst catastrophe at a nuclear power plant, was officially declared a tourist attraction.

Nuclear tourism. Coming around the time of the Fukushima disaster,<sup>6</sup> the idea seems absurd. And that is what drew me, along with the wonder of seeing towns and a whole city—almost 50,000 people lived in Pripyat—that had been abandoned in a rush, left to the devices of nature.

10 Sixty miles away in Kiev, Ukraine’s capital city, weeks of bloody demonstrations had led in February to the expulsion of the president and the installation of a new government. In response to the upheaval Russia had occupied Crimea, the peninsula that juts from southern Ukraine into the Black Sea. Russian troops were massing on Ukraine’s eastern border. In a crazy way, Chernobyl felt like the safest place to be.

11 The other diehards in the van had come for their own reasons. John, a young man from London, was into “extreme tourism.” For his next adventure he had booked a tour of North Korea and was looking into options for bungee jumping from a helicopter. Gavin from Australia and Georg from Vienna were working together on a performance piece about the phenomenon of quarantine. We are used to thinking of sick people quarantined from the general population. Here it was the land itself that was contagious.

12 Of all my fellow travelers, the most striking was Anna, a quiet young woman from Moscow. She was dressed all in black with

## NOTES

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**eerily** (EER uh lee) *adv.*

MEANING:

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**specter** (SPEHK tuhr) *n.*

MEANING:

5. **Hiroshima** (hee roh shee mah) and **Nagasaki** (nah gah sah kee) Japanese cities upon which the United States dropped nuclear bombs during World War II.

6. **Fukushima** (foo koo shee mah) **disaster** In 2011, a nuclear power plant in Fukushima, Japan, overheated and leaked radiation after a powerful earthquake and tsunami struck the area.

fur-lined boots, her long dark hair streaked with a flash of magenta. It reminded me of radioactivity. This was her third time at Chernobyl, and she had just signed up for another five-day tour later in the year.

13 “I’m drawn to abandoned places that have fallen apart and decayed,” she said. Mostly she loved the silence and the wildlife—this accidental wilderness. On her T-shirt was a picture of a wolf.

14 “‘Radioactive Wolves?’” I asked. It was the name of a documentary I’d seen on PBS’s *Nature* about Chernobyl. “It’s my favorite film,” she said.

15 In the early hours of April 26, 1986, during a scheduled shutdown for routine maintenance, the night shift at Chernobyl’s reactor number four was left to carry out an important test of the safety systems—one delayed from the day before, when a full, more experienced staff had been on hand.

16 Within 40 seconds a power surge severely overheated the reactor, rupturing some of the fuel assemblies and quickly setting off two explosions. The asphalt roof of the plant began burning, and, much more threatening, so did the graphite blocks that made up the reactor’s core. A plume of smoke and radioactive debris rose high into the atmosphere and began bearing north toward Belarus and Scandinavia. Within days the fallout had spread across most of Europe.

17 Throughout the night firefighters and rescue crews confronted the immediate dangers—flames, smoke, burning chunks of graphite. What they couldn’t see or feel—until hours or days later when the sickness set in—were the invisible poisons. Isotopes of cesium, iodine, strontium, plutonium.<sup>7</sup> The exposures they received totaled as much as 16 sieverts—not micro or milli but whole sieverts, vastly more radiation than a body can bear. From the high-rises of Pripjat, less than two miles away, Chernobyl workers and their families stood on balconies and watched the glow.

18 In the morning—it was the weekend before May Day<sup>8</sup>—they went about their routines of shopping, Saturday morning classes, picnics in the park. It was not until 36 hours after the accident that the evacuation began. The residents were told to bring enough supplies for three to five days and to leave their pets behind. The implication was that after a quick cleanup they would return home. That didn’t happen. Crews of liquidators quickly moved in and began bulldozing buildings and burying topsoil. Packs of dogs were shot on sight. Nearly 200 villages were evacuated.

19 The immediate death toll was surprisingly small. Three workers died during the explosion, and 28 within a year from radiation poisoning. But most of the effects were slow in unfolding. So far, some 6,000 people who were exposed as children to irradiated

7. **Isotopes of cesium, iodine, strontium, plutonium** versions of these elements that are radioactive.

8. **May Day** holiday for laborers and the working class celebrated in the Soviet Union and other countries.





An abandoned school in the small city of Pripyat. Evacuated on April 27, 1986, the city remains largely untouched to this day.

milk and other food have had thyroid cancer. Based on data from Hiroshima and Nagasaki, the overall mortality rate from cancer may rise by a few percent among the 600,000 workers and residents who received the highest doses, possibly resulting in thousands of premature deaths.

20 After the accident a concrete and steel structure—the sarcophagus—was hastily erected to contain the damaged reactor. As the sarcophagus crumbled and leaked, work began on what has been optimistically named the New Safe Confinement, a 32,000-ton arch, built on tracks so it can be slid into place when fully assembled. Latest estimate: 2017. Meanwhile the cleanup continues. According to plans by the Ukrainian government, the reactors will be dismantled and the site cleared by 2065. Everything about this place seems like science fiction. Will there even be a Ukraine?

21 What I remember most about the hours we spent in Pripyat is the sound and feel of walking on broken glass. Through the dilapidated hospital wards with the empty beds and cribs and the junk-strewn operating rooms. Through the school hallways, treading across mounds of broken-back books. Mounted over the door of an old science class was an educational poster illustrating the spectrum of electromagnetic radiation. Heat to visible light to x-rays and gamma rays—the kind that break molecular bonds and mutate DNA. How abstract that must have seemed to the schoolkids before the evacuation began.

22 In another room gas masks hung from the ceiling and were piled in heaps on the floor. They were probably left there, our guides told us, by “stalkers”—surreptitious visitors who sneak into the zone. At

#### NOTES

- first they came to scavenge, later for the thrill. They drink from the Pripyat River and swim in Pripyat bay, daring the radiation and the guards to get them. A stalker I met later in Kiev said he'd been to Chernobyl a hundred times. "I imagined the zone to be a vast, burnt-out place—empty, horrible," he told me. Instead he found forests and rivers, all this contaminated beauty.
- 23 Our tour group walked along the edge of a bone-dry public swimming pool, its high dive and racing clock still intact, and across the rotting floor of a gymnasium. Building after building, all decomposing. We visited the ruins of the Palace of Culture, imagining it alive with music and laughter, and the small amusement park with its big yellow Ferris wheel. Walking up 16 flights of steps—more glass crunching underfoot—we reached the top of one of the highest apartment buildings. The metal handrails had been stripped away for salvage. Jimmied doors opened onto gaping elevator shafts. I kept thinking how unlikely a tour like this would be in the United States. It was refreshing really. We were not even wearing hard hats.
- 24 From the rooftop we looked out at what had once been grand, landscaped avenues and parks—all overgrown now. Pripyat, once hailed as a model Soviet city, a worker's paradise, is slowly being reabsorbed by the earth.
- 25 We spent the night in the town of Chernobyl. Eight centuries older than Pripyat, it now has the look of a Cold War military base, the center for the endless containment operation. My hotel room with its stark accommodations was like a set piece in a museum of life in Soviet times. One of the guides later told me that the vintage furnishings were salvaged from Pripyat. I wasn't able to confirm that officially. The radiation levels in my room were no greater than what I've measured back home.
- 26 By the next morning we were becoming almost cavalier about the exposure risk. Standing beneath the remains of a cooling tower, our guide, hurrying us along, exclaimed, "Oh, over here is a high-radiation spot! Let's go see!" as casually as if she were pointing us toward a new exhibit in a wax museum. She pulled up a board covering the hot spot, and we stooped down holding our meters—they were frantically beeping—in a friendly competition to see who could detect the highest amount. My device read 112 microsieverts per hour—30 times as high as I had measured on the flight. We stayed for only a minute.
- 27 The hottest spot we measured that day was on the blade of a rusting earthmover that had been used to plow under the radioactive topsoil: 186 microsieverts per hour—too high to linger but nothing compared with what those poor firemen and liquidators got.
- 28 On the drive back to Kiev our guide tallied up our accumulated count—ten microsieverts during the entire weekend visit.
- 29 I'd probably receive more than that on the flight back home.