

The Daylight

Environmental law only ever worked because breaking it was expensive. It just got cheap.

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Jed Anderson has practised environmental law for twenty-seven years. He writes from Houston, Texas.

A disclosure: I build environmental AI, and I would benefit if what I describe here were built. Check the argument, not me.

I spent twenty-seven years finding the gaps.

That isn't a confession. It was the job, it was legal, and I was good at it. A client would come in with a plant and a problem, and somewhere in the rules governing that plant there would be a place where the words didn't quite meet. I would find it. That is what they paid for.

Here is what one looks like.

A rule says a plant may not raise its emissions by more than a set amount. Sensible enough. But a rise has to be measured against something. So the rule lets you compare against any two-year stretch out of the last ten.

Pick a busy stretch. Plants run dirtiest when they are pushed hard, and dirtier still coming back from a long shutdown, when everything is cold and nothing is tuned. Choose two years like that and the plant already looks like a heavy emitter. Measured against that, the new work looks like almost nothing.

The plant has not changed. The tonnage has not changed. Only the year you held it up against.

That is a gap. I have found hundreds.

Some are plainer. Take a limit written as a yearly average. You can run dirty on a still afternoon and clean in a gale, and the arithmetic never notices. The people downwind of the still afternoon do. Or a threshold that counts one chemical and not its close cousin. Or a test that samples on Tuesday for what a furnace did on Sunday.

None of that is cheating. Every one of those choices is written down, was fought over, and was approved by serious people.

You might take all that as proof the rules were written badly. They weren't. I have read most of them and argued about a good number, and the drafting is better than it has any right to be.

The trouble runs deeper than drafting, and it has no fix.

We care about a river a child can swim in. You cannot write *swimmable* into a statute. A judge cannot enforce it. A plant manager cannot comply with it at two in the morning. An inspector cannot measure it. So we write a number instead — parts per billion, tons per year, hours of testing.

The number is not the river. It never was. It is our best attempt to point at the river with something a stranger can check.

And the moment the number exists, so does daylight. A space between what the number says and what we actually wanted. Somewhere in that space is a way to satisfy the rule completely and miss the point entirely.

You cannot close it. Try, and you write a more careful number — and the more careful number opens daylight of its own, in a new place, usually where nobody is looking. This is not sloppiness. This is what writing a rule *is*.

Fifty years of the best lawyers in the country, on both sides, fighting each other in front of judges, did not close it. I know because I was one of them. Closing it was never on the table. We argued about where the daylight should fall. Never whether.

So why did any of it work?

Because finding the daylight was expensive.

It took someone like me. A decade to learn where the seams are. Then months on a single question. Then a client willing to pay for all of that on a question that might come back *no*.

Every gap in American environmental law has had a price on its head, and the price was a specialist's time. That price did almost all of the work.

Most of those gaps have never been found by anyone. Not because they are hidden. Every rule in the country is published, free, for anybody who wants it. They have never been found because nobody could afford to go looking.

We were never protected by the rules. We were protected by how slow we were.

Nobody wrote that down. It is in no statute and no rulebook. You don't write down the thing that has always been true.

It isn't true anymore.

Work that took forty hours takes four. That is not a forecast. That is what the tools already do, today, in my own field, on my own desk.

Speed is the smaller half of it. The larger half is that nobody has to be looking.

Last June a group of researchers took thirty-two real regulations and rebuilt them as working simulations. Each of the thirty-two had a real gap in it — one that somebody in the world had found, used, and forced a patch for. Then they set machines on those rules. Not to break them. Just to score as well as possible under them, the way a company tries to do well under a rule.

The machines rediscovered more than half of the gaps. Nobody had told them the gaps were there.

That is the part to sit with. A gap is simply the cheapest way to a high score. Anything hunting for the cheapest way will walk straight into one, and it will not know what it has found. It has no idea it is standing in a river.

Which would matter less if the people building these machines were watching for it. They are not, and I do not think it is malice. Every large AI company publishes a document setting out what its systems should value — the closest thing these machines have to a conscience. I searched all five of them, in full.

The words *watershed*, *habitat*, *biodiversity*, *pollution* and *wildlife* appear zero times. Not rarely. Zero. Across all five, combined.

They are removing the slowness. They do not know what it was holding up.

The obvious answer is to write better rules.

I tried that. In 2016 I rewrote the Clean Air Act — the law that governs the air over every American city — from its foundations. The first complete redraft of it in the country's history. Not a patch. The whole thing, rebuilt, published, with a book about the attempt called *A Victorious Defeat*.

The title was not modesty. Nothing moved.

But suppose it had. Suppose every word of it had passed. It still would not have touched this problem. A better rule is a rule. It is still numbers standing in for things we love, and every number still throws its daylight. Rewrite the Act and you get new numbers, and inside them new gaps, waiting for a search that now costs an afternoon.

You cannot out-write something that never gets tired.

Which leaves one move.

Stop grading the paperwork. Grade the river.

Today, compliance means a report — numbers, filed quarterly, describing what a facility believes it did. The report is a story about the river. Stories can be edited, and I have spent a career editing them lawfully.

The river cannot be argued with.

Put an instrument in the water and the score stops being a claim about the river. It becomes the river. To make the score say clean, you have to make the water clean.

Understand what that does. Every gap I have ever found lived in the space between a measurement and the thing it stood for. Close that space — make the measurement and the thing the same object — and there is no space left to work in. Not a smaller gap. No gap. It is the only test I know of built that way, and it is why this is the one move that does not lose.

And it is not a thought experiment. We have already done it once.

Since 1993, federal rules have required continuous instruments on the chimneys of nearly every coal- and gas-fired power plant in the country. Not a quarterly report. A reading, every hour, published. Those rules were written against an industry with every reason and considerable means to defeat them, and the instruments held. The arguing mostly stopped. When the measurement is the thing itself, there is not much left to argue about.

We have known how to do this for thirty-three years. We have simply never pointed one outward — at a river, a marsh, the air over a neighbourhood — on behalf of anything alive.

The work is small and it is nobody's job. If you write environmental permits, take one limit you already impose and write it so a machine could check it hour by hour. See what breaks. If you run an agency, add a line to your incident form asking whether an automated system was involved. None of this is being counted right now, and what is not counted is never believed. If you work at one of those five companies, put an environmental rule into the tests you already run on your own systems. You have the equipment. It is a weekend.

And if any of this reaches you as an argument for weaker rules — it is not, and I would fight that in public. Everything here sits on top of what already exists. The limit stays exactly where it is. Anything that moves may only move tighter. A rule that can loosen while you watch is not a rule.

Here is what would change my mind.

A chimney has one owner. A river has a farm on it, a road, a town, and three plants. A reading that says the water is dirty does not say who made it dirty. If that cannot be solved, the river cannot be graded, and my answer fails exactly where I most want it to work.

Real cases also need history, nerve, and a willingness to argue with an inspector. If cheap searching cannot reach that far, it stays a laboratory result, the old slowness holds, and I am simply early. And if we put instruments in rivers and they cry wolf, people will learn to ignore them. Then I will have built the thing I was warning about.

We spent fifty years writing rules against an opponent who had to sleep.

Sources. The forty-hours-to-four figure comes from my own practice. The simulation study is Liu and colleagues, "Large Language Models Hack Rewards, and Society," June 2026; the environments were sealed test versions rather than live regulations, and the authors are careful to call the result evidence that something can happen rather than a measure of damage done. I read it the same way. The search of the five companies' published values documents was run over their full texts on 2 August 2026. Hourly stack monitoring has been required since 1993 under the federal rule known as Part 75, which now covers roughly ninety-six per cent of American coal- and gas-fired generation. The Clean Air Act redraft and A Victorious Defeat date from 2016. Every figure here is recorded in an open ledger kept alongside this essay. The engineering — what the instruments would have to measure, what it would cost, and the ways it could be defeated — is set out in a [technical companion](#).

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