W03 – Business and financial writing

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For decades, Yorktown's coal units helped keep the Peninsula's lights on. Now they're powering down.

https://www.dailypress.com/news/york-poquoson/dp-nws-yorktown-power-plant-20190227-story.html

They cut Yorktown Unit 2 off from Virginia's electric grid for the last time Wednesday night, a day and a half after Dominion Energy Virginia fired up its new 500,000-volt transmission line, but the giant turbine would spin very slowly for four more days, to cool off.

The 28-year-old workhorse coal power unit had — along with Yorktown 1, idled a few days earlier — kept the Peninsula from any risk of rolling blackouts 100 times over the past two years, on days when thermometers soared or plunged or when Dominion crews had to take major power lines or equipment down.

Replacing the electricity that it and 62-year-old Yorktown 1 pumped into the Peninsula's wires was why Dominion built that 500,000 volt transmission line across the James River. On Friday, a federal appeals court said the Corps of Engineers didn't follow proper procedures when approving construction of that line, and ordered the agency to do a full environmental impact statement.

Firing up Yorktown 2 for its final days' run took a call from the managers of a multstate electrical grid stretching from New Jersey south to North Carolina and west to Illinois, exercising emergency powers reluctantly granted by the U.S. Department of Energy. It was the work of a half a day to build up enough pressure in the plant's 140-foot-tall boilers — it takes steam at 1,000 degrees and 1,800 pounds per square inch to spin Unit 2's two-foot-diameter, solid steel drive shaft at the 3,600 revolutions per minute required to make enough electricity to safely pump into Dominion's wires.

Shutting it down will take time, too. Fifteen hours after taking Unit 2 off line, control room operator Mike Russell and trainee James Hautz were carefully watching readings from the temperature and pressure gauges on several of the plant's giant pumps — one of them a 25-foot-long, 16,380-pound behemoth — to see when it might be safe to shut them off.

When the small screen on the old control panel Hautz was watching flat-lined, and the computer screen Russell was watching a few feet away on the new, horse-shaped main desk displayed the same readouts in a slightly different format, and a buzzer sounded an alarm, they knew they could cut out the

circulating pumps. Hautz turned the two upside down "L" shaped handles, and two colleagues raced out to close off valves.

"Secured purge water," a cracking radio call came back a moment later. "Turbine's turning."

And the control room's big red-numbered display showing the plant's own power usage dipped from 3.2 megawatts — enough to power 2,400 homes — to 2.3.

Russell, Hautz and the rest of Yorktown's 50 workers have been turning Unit 1 and 2 on and off a lot more often than they used to — the plant's 62-year-old Unit 1 and newer Unit 2 were designed to operate pretty much constantly. Even as they aged, they ran more than half the time, until 2017 when the plant's final short-term exemption from new federal air pollution rules expired.

Since then, emergency orders allowed grid operators to order the units online in order to keep the Peninsula from seeing rolling blackouts — the kind of off-and-on operation that puts a strain on any machine, especially elderly ones.

"I'd worry they wouldn't be able to come online when we needed them; once they were up, I'd worry about whether they could keep running as long as we needed," said Mo Alfayyoumi, director of Dominion's transmission systems operation center.

There was a different kind of strain on the plant's employees — some of whom, like Pete James, Yorktown's lead motor mechanic, had worked there for four decades. There used to be a lot more — five years ago, some 115, before that about 200. Back in those days, James recalled, they took pride in being able to handle, in house, a complete breakdown of the giant turbines and electric generators, for an annual check up.

"We'd have thousands of pieces, all over the turbine deck ... the rotor on the generator, that was 40 tons," he said.

Yorktown employees' years of experience would prove vital, Alfayyoumi said.

"They'd call and say, 'We have a tube leak,' and I'd say, 'Do you think you can keep running just a little more?" he said. And while that conversation was going on, Yorktown operators would be clambering around the boilers, waving rag-tipped broom-handles — and isolating the invisible flow of 1,000 degree, high pressure steam when it would snap the broom handle in two.

Alfayyoumi remembers one chilling call from Yorktown saying they couldn't start because of a broken fan that drives air into the plant's furnaces so its coal burns hot enough to make that 1,000-degree steam.

It could have idled Unit 1 for weeks — "Where do you find a replacement for a 62-year-old part?" as Alfayyoumi put it.

Turned out, at an idled Dominion plant, 120 miles away in Fluvanna County. Yorktown employees raced up, found a working fan there, disconnected it, raced back to Yorktown and installed it there.

Over the next several months, they'll be securing machinery and draining oil, water and other fluids from the miles of piping serving Units 1 and 2. Contractors will cut about 130 feet off of the smaller of the Yorktown plant's two smokestacks and take the belts off the multistory coal conveyor structures. The rarely used Yorktown 3 oil unit remains — but the company's current long term plan calls for closing it down in 2022.

With shutdowns looming, as employees retired, those who remained had to double up on work. Fewer employees means each wears more than one hat, said site manager David Rowe.

And the looming shutdown meant dealing with equipment in a different way. A piece of equipment that's not working right isn't necessarily replaced — "We have to ask, can we patch it or fix it?" Rowe said.

"Sometimes both," James added.

But every time grid operators called on them, Yorktown's coal units made it, Rowe said. They did so despite failing motors in the grinders that turn the plant's coal into a fine grit for easy burning, or burned-out sensors or scanners.

"There was a lot of overtime, a lot of being called in on weekends," Rowe said.

Still, that's what working at a power plant is about sometimes, said production manager Art Pattison, another four-decade veteran.

"We're there to provide a service," he said. "When it's snowing, when the roads are icy, when there's a hurricane watch, we came in and kept the power on."

Up at the system operating center, 70 miles away in suburban Richmond, Alfayyoumi knew he could count on them, too. Every time the basketball-court-sized bank of screens showing Dominion's high-voltage network showed blips of yellow in its spiderweb of blue and red, it meant something was out of service.

Without Yorktown 1 and 2 as backups, the Peninsula could have been one big step closer to rolling blackouts — a failed transformer, an overheated line might have been enough. And on days when demand was high, there was a big danger that the Peninsula's draw of electricity through the lines and equipment that remained could have set up a domino-like series of overloads that could have reached such key facilities as Dominion's giant power plant in Chesterfield County or its even bigger nuclear station at North Anna. And if those went out, the cascade of blackouts could have swept much farther.

"I worried about cascading every day. You just can't tell where it will stop," Alfayyoumi said.

And, remembering the big northeast blackout of 2003, which took down power for 55 million people, he added, "Who would have thought two trees falling in Ohio would have cut power as far away as New York and Canada?"

A trip with the lone company chasing menhaden in a 140-year tradition on the Chesapeake Bay

https://www.dailypress.com/news/environment/dp-nw-menhaden-20190915-35b7ycwjpndwzdwdffxzos2zxq-story.html

The second set went fast — the 150,000 menhaden in the net not as "heavy" — that is, as frisky swimmers — as the fish in the Cockrells Creek's first haul, farther down along the York Spit Channel a half hour earlier.

As the boat's giant vacuum hose gathered in the last flopping menhaden, the spotter plane pilot circling overhead said they should drop everything and move off to port where another 150,000 fish were schooling. So the men on the Cockrells Creek's two 40-foot "purse boats" hastened away — still tied together with ropes and a giant 1,500-foot-long purse seine net, half on one boat, half on the other.

It didn't go as fast the rest of the day in Virginia's 140-year old menhaden fishery, these days shrunken to one company with eight vessels operating out of a tiny port in one of the most rural corners of the state.

It's an industry that once made the village of Reedville one of the most prosperous in the state — big, brightly-painted three-story Victorian mansions, bedecked with gingerbread woodwork under their generous shade trees line Main Street in testimony to those long gone days.

These days, menhaden are at the center of an obscure, if fiercely fought, political battle over who should catch them where, and whether the Omega Proteins fleet that still sails from Reedville is harvesting too many from the Bay. Among the reasons for that concern: Menhaden are an important food source for striped bass.

"We're the last people who want to be overfishing them. We want there to be lots of fish," said Alan Hinson, captain of Omega's newest boat, the 185-foot long Cockrells Creek, trying not to be too disappointed that the day's final set — a school he'd spotted off the Mathews County shore — totaled just 60,000 menhaden, plus the ray one of his crew had carefully tipped out of the net as the last several hundred fish were sucked into the hold.

Those 60,000 fish weighed about 9.5 metric tons, given the average six-ounce weight of an eight- to nine-inch, 2-year-old fish, like those caught that day.

In 2013, when the Atlantic States Marine Fisheries Commission cut its coastwide cap on the menhaden catch by 20%, Omega cut two boats from its fleet, which meant 45 fishermen lost their jobs.

At the same time, the commission cut its separate limit on the Bay catch by purse-seining vessels like Cockrells Creek by 20%, to 87,000 metric tons a year. Purse seiners are called that because they encircle schools of fish with long seine nets which are rigged to be drawn shut and tightened, like an old-fashioned money purse, to trap their prey.

"We've adjusted," Hinson said. "We can live with that."

But in 2017, when the commission decided the stock of menhaden was healthy enough to allow for an 8% increase in the coastwide quota — the third straight year the limit increased — it went the other way with its cap on the Bay catch by purse-seiners. That it slashed by 41.5%, to 51,000 tons.

Omega lobbied hard, and successfully, to convince the Virginia General Assembly not to adopt the commission's new Bay cap, meaning the state operates under the old 87,000-ton limit.

Earlier this month, with weeks to go before the end of the season, federal fisheries officials told Omega it had exceeded the new 51,000 Bay cap by 400 tons.

"We had no intention going into the season to exceed it, and never imagined we would as we've been doing so much fishing just outside the Bay the past few years, but this year those fish didn't show out there but instead showed just inside the line designating it being caught in the Bay," said Monty Deihl, Omega's vice president for ocean fleet services.

Deihl said there's no way Omega's Bay catch would exceed the older cap.

"If a company is going to be fishing, it needs to comply with state and regional rules and regulations ... not only have they not done that, they don't anticipate doing that," since Omega isn't saying it will not stop fishing in the Bay, said Chris Moore, a senior scientist with the Chesapeake Bay Foundation.

So far, the commission has not pushed the matter, by recommending the U.S. Department of Commerce impose sanctions on Virginia that could include a moratorium on commercial fisheries — a recommendation likely to find little support in the Trump administration, commission members have said.

The commission said its aim with the lower Bay cap is to make sure the menhaden harvested to be processed into fish oil and fishmeal at Omega's plant don't all come from the Chesapeake Bay. The total catch for fish oil and fishmeal in recent years, including what Omega's boats catch in the ocean from New Jersey to North Carolina, has averaged under 140,000 metric tons.

More to the point, the latest Bay quota cut was intended as a precautionary measure, as scientists work for a better understanding of the Bay's menhaden stock and how it fits into the entire Chesapeake ecosystem, Moore said.

It was pegged at the average of the past five years, "plus a fudge factor," Moore said. So far Omega hasn't caught more, so it seems like a precaution that doesn't hurt the company, he said.

But the commission increased its cap on menhaden caught in Maryland waters and the Potomac River, where Omega's boats are not allowed to fish, by 60%, its 2017 management plan amendment shows. Instead of being processed, the menhaden caught there are used as bait to catch edible fish and crabs. The cap on Omega's Bay catch is eight times as large as the limits on the Maryland and Potomac River harvest.

Watching the fish

To spot menhaden from a boat, even with binoculars from the pilot house of the Cockrells Creek, the equivalent of four stories up above the waves, isn't easy.

A purplish patch among the waves could be fish or simply a current or quirk of wind. The whipping of waves from the flipping of diving fish's tail, the circling gulls or pelicans — though there are far more of the latter these days than back when the fishery started — can all be clues.

But you can plow along miles of the lower Bay without spotting any, unless your luck is good, as it was for Hinson, spotting the Cockrells Creek's last set of the day.

Which is why Omega's boats work hand in glove with spotter pilots. After a Sunday flight by the spotters found the best spot on their New Jersey to North Carolina patrol was likely to lie between Cape Charles and Mobjack Bay, the Cockrells Creek got underway from Reedville at 2 a.m. Monday, in order to be in place at dawn, when the planes could take off again.

"It's like fishing from the air," said Omega vice president Deihl, while watching the boats prepare for the overnight voyage from Reedville to the mouth of the Bay.

The sky above the black silhouette of the Eastern Shore was just reddening with the dawn when mate Tim Crandall let the Cockrells Creek drift slowly just outside an anchorage dotted with a half dozen coal ships, waiting to load at Newport News and Lamberts Point.

The spotter planes arrived shortly after 6 a.m., and the Cockrells Creek would circle, impatiently, for nearly two hours before one sent word of a big, nearby school.

Another boat, which had made a slightly earlier start, was down closer to the Thimble Shoals light where, as things would turn out, the heavier schools, fresher from the ocean, would be that day. It's not just that those fish move around more, making them harder to handle in the net; they can be bigger and, at least on this day, gather in larger schools.

The Omega boats couldn't go too much farther out — they can't fish too near the Chesapeake Bay Bridge Tunnel and have what Hinson calls a "gentleman's agreement" not to fish near the Lynnhaven River or closer than three miles off the Virginia Beach Oceanfront. And while the boats will range as far as New Jersey and North Carolina, Hinson's hunch was the fish this year were more inclined to spend time in the Bay than in past years.

"You have to go where the fish are," he said.

The Bay Cap

That's why the new Bay cap of 51,000 tons worries Omega.

Even though its catch in the Bay doesn't always reach that point, when autumn's nor-easters and hurricanes brush by, its boats can't safely go out off the Carolina shore to chase the bigger, oilier late season fish that congregate there.

The fish don't like the bad weather either — "the plant runs 24 hours a day during the fishing season when we have fish, having fish is very weather dependent," Deihl said.

"Fish show in different areas at different times depending on many factors — weather, winds, tides, sunshine, atmospheric pressure, etc. — and since we need to be able to see what we are after, we will normally travel, within reason, to where the fish are showing, fully realizing that we are normally passing tens of millions of fish which are too far below the surface for us to effectively see and catch at that moment," he added.

Menhaden stocks are growing, particularly to the north, where a new fishery is developing chasing the fish for use as bait for lobsters and other seafood, but Moore said there are troubling signs about the Bay population.

While the commission has not found any overfishing of menhaden, with its data showing the catch has been sustainable since the early 2000s, Moore is concerned that there's limited information on the size of the stock in the Bay, the nursery for about a third of all Atlantic menhaden.

He's also concerned that the number of young fish has been flat, rather than growing. The commission's data shows this number ranging from around 12 billion to 18 billion a year since 1990. That's down from the more variable numbers of the 1980s, which were as high as around 30 billion.

But besides his questions about population trends in the Bay, Moore also worries that Omega's lobbying against the new Bay cap — which included convincing the Virginia General Assembly not to amend state law to incorporate the cut — puts the whole interstate system of managing fisheries at risk, even for such hard-pressed species as striped bass.

"When the biggest actor says it's not going to accept the rule, that's a bad signal, he said.

Time and money

"If you can step it up, we've got some really good stuff popping up to the west," Crandall radioed to the purse boats as they closed up and began tightening the net around the first school of the day. He had just heard that the spotter found a second, big school of menhaden a few hundred yards away.

But that first school was even better than the spotter had estimated — there'd be 300,000 in all. And because they were heavy — swimming hard to try to escape — they were difficult to handle.

When Crandall eased the Cockrells Creek next to the purse boats juggling the several tons of fish in the net between them — a feat of seamanship that Omega won't allow its boats to try when there's more than three- to four-foot seas — he knew they'd have to take a pass on the second school the spotter reported.

Crandall ended up using the boat's "hardening rig" — the large crane amidships — to make three separate grabs at the net, as if it was securing three big handfuls of the mesh in order to keep the fish tightly corralled for the vacuum hose to take up. For the rest of the day's much smaller sets, the purse boats' much smaller power winches were enough to handle that task.

"Time money, time is money," Crandall muttered, as the slow unloading continued and the spotter directed another Omega boat to the second school that Crandall hoped to hurry after.

The chase

But 40 minutes later, the spotters found another school for the Cockrells Creek: Hinson pulled the lever that sounded the bell to tell the purse boats' crews — five each, including Hinson himself on the starboard boat — to get into their heavy waders, sea boots and hard hats and climb up to the stern ramp where the purse boats were secured.

It took just a minute or two to motor out to the school. On the way out, the two boats move as one, secured by lines bow and stern as well as by the giant net, filling the rear half of each boat.

From the Cockrells Creek, Crandall watched carefully, glancing back and forth to the darker spot the school made in the water and the sun.

"I want to get in position — if they're going to break out, I want to get between them and the sun. They'll head to the sun," he said.

"But I'm going to want to end up on the other side," he continued, pointing to the open end of the "V" the two purse boats were making, as they started hauling the net in. The opening of that V would need to be tight against the Cockrells Creek when it was time to start transferring the fish.

His careful jockeying of the boat and the lighter load in the net made for a faster transfer of the second set — and allowed the purse boats to chase quickly after another school when they got the word from the spotter.

Teamwork

It takes a lot of teamwork to chase menhaden.

The five men in each purse boat have set positions: one at the bow, handling lines; Hinson at the controls in one boat, bosun Lionel Waddy in the other; one man at the power winch; and two at the stern, handling lines and carefully stowing the net as the winch man guides it through the winch's big rubber wheels.

When the Cockrells Creek approaches purse boats and their full net, hand signals and gestures coordinate Larry Lander's precise toss of lines to the purse boats as well as, a bit later, Crandall's control of the big hardening rig with the purse boats and Hinson's and Waddy's directions to one another and to their purse boat crews.

Hinson's sharp downward thrust of his arm, for instance, alerted Irvin Ball, at the stern in Hinson's purse boat, to the thrashing of a big red drum fish in the third set; reaching down, Ball was able to roll the fish out so it could swim away.

Radio calls from the half dozen spotter planes, circling more than 500 feet above, keep the team on track.

After the purse boats transferred the second set to the Cockrells Creek, it was the spotter's radio call — "Let it go, let it go," that told the purse boats it was time to start circling the third school of the day.

Then, the spotter's call: "You're off a little bit" to the bosun, to let him know he hadn't quite reached the edge of the school and needed to ease off to starboard some, before the boats and neatly encircled the fish.

Sometimes, it doesn't work as well — as when the spotter found a fourth school in hard by the second set of buoys in the York Spit channel.

But as the purse boats approached, came the bad news.

"They're really not moving all that much," the spotter radioed.

The fish were too close to the buoy to go after — even if the purse boats could keep the net clear, there was too big a risk the buoy would tear up the net.

Hits and misses

The fifth school, on the other hand, moved too fast.

"They're not breaking. They're not breaking," Crandall muttered, watching through his binoculars as the purse boats tightened the net,

"Maybe they're late breakers ... they're not breaking. There's not going to be any fish."

There weren't — just several hundred, barely worth putting the suction hose down.

A day that had started strong was turning sour.

"Tell me which way to go," Hinson grumbled into the radio after clambering back up to the pilot house.

But the spotters had nothing good to tell him.

Hinson didn't really want to turn south, back toward Thimble light, since that would put him behind another, faster boat — that would mean a choice of coming in late back to Reedville, and maybe not unloading his fish until the next morning, putting him back among the schools too late in the day for good fishing, or else staying out overnight.

Overnight would mean the fish would begin to soften, despite the Cockrells Creek's refrigerated holds.

Since the crew's pay depends in large part on the volume of fish they land — and since softer fish can get chewed up at dockside during unloading, and get squished down more than firmer, fresher fish in the tanks where they're measured — there's a cost to delay in returning to Reedville.

"Sometimes, playing the plant is more important than playing the fish," Hinson said.

Being first — or not

Headed north, off the Mathews County shore, Hinson got some good news: One of the spotters found a school of menhaden — a big one, maybe 200,000 or 250,000 fish.

But dead ahead, right next to the school was a small white powerboat, and a couple of men happily casting.

They were going after cobia, Hinson reckoned.

Menhaden aren't particularly good to eat — it is their oil, full of omega-3 fatty acids, that makes them taste bad but also makes them a valuable source of nutritional supplements, especially for people trying to manage triglyceride levels in their blood or boost the effectiveness of anti-inflammatory drugs for treating rheumatoid arthritis.

But fish and birds feed on them — when the purse boats encircle a school, they'll draw flocks of gulls and pelicans.

Recreational fisherman say menhaden are a favorite prey of striped bass.

A Virginia Institute of Marine Science study shows menhaden account for about 8% of what stripers eat. Other studies, though, suggest that menhaden account for about a third of what large striped bass eat, while computer modeling by a team of fisheries scientists from the University of Maryland's Chesapeake Biological Laboratory and Humboldt State University in 2017 estimated the population of striped bass is nearly 30% below where it would be if there were no commercial menhaden fishery.

Watching one of the men on the power boat cast again, Hinson cut the Cockrells Creek's engines.

"What are you doing here on a work day?" he joked. "Maybe they'll move on."

But another small power boat sped towards them, eyeing what its captain obviously thought was a fish hotspot.

"We won't disturb them," Hinson said, watching the second boat settle in the water off his port beam.

"They were here first."

Sharp eyes

Hinson cut the engine to let the Cockrells Creek drift for a bit, hoping the two power boats would move on, but after several minutes, reluctantly, gave up and started heading back to Reedville.

After three decades chasing menhaden, he can read the water, and spotted a darker patch with the tell-tale small splashes of menhaden fins breaking the surface. He radioed a spotter, to see if the pilot saw the school that he was sure he was seeing.

He had.

It wasn't the biggest school, but it was tight-packed, and right there. He rang the bell, stepped back into his boots and waders, and headed to the purse boats, poised on the Cockrells Creek's stern ramp.

The 60,000 fish the purse boats unloaded a half hour later would put the Cockrells Creek's take that day at just over 800,000 menhaden.

"A little above average," Hinson said.

With the Lancaster shore off to port, Hinson — a native of that Northern Neck county — says he remembers his grandfather's pound nets there — the stakes that held those nets are long gone.

Hinson' father fished for two decades with the menhaden fleet, while his great-grandfather was also a pound net fisherman in Lancaster.

An avid recreational fisherman himself — Hinson just came in fourth in a mackerel tournament — he knows that menhaden are an important source of food for other species. But he's pretty sure there are more than enough to go around for the striped bass and other game fish that themselves generate a multimillion-dollar Virginia business and for Reedville's big menhaden boats.

"I think there's more fish now than when I was a boy," he said, making the final turn into the channel for Reedville.

Insurer errors mean triple-digit long-term care price hikes

https://www.dailypress.com/government/dp-nws-long-term-care-insirance-20190409-story.html

Missed guesses over a quarter century about how long people stay in nursing homes and how many would drop the costly insurance policies that pay the bill could hit tens of thousands of Virginians with double— or triple-digit percentage increases in premiums.

Most of the sellers of long-term-care insurance asking the State Corporation Commission to approve rate increases are still profitable. And many are seeking those hikes on the heels of double-digit increases already won over the past few years, a Daily Press review of thousands of pages of insurance company filings show.

And many of their policyholders — worried about premiums they're already struggling to pay — are saying that's a reach too far, according to scores of public comments submitted to the state.

The proposed increases come from an industry that's been plagued for decades with complaints about misrepresentation about premiums and unfair claims practices.

It's led one of the nation's industrial icons, General Electric Co., to take a multibillion-dollar write off. Stockholders are suing, alleging that GE buried the problem so deep in its books that it in effect defrauded them.

Senior Health Insurance Co. of Pennsylvania has just filed a financial report with regulators showing liabilities — basically, what it would owe in claims — exceed its assets by \$440 million. The company is seeking to raise premiums 30% to 40% on Virginia policies after 25% increases in 2017.

"I don't know if John Hancock (Life Insurance) is too big to fail, but I know that we are too small to bail it out," Charles O. Cecil of Alexandria wrote to the SCC, complaining about the company's request for an average 41% increase in premium rates after earlier hikes of 13% in 2009, 46% in 2011 and 50% in 2016.

"We believed it — naively it seems — when the agent told (us) to buy while young, that the lower premiums would be locked in and would never increase," Cecil added.

The insurance was meant to ease buyers' worries about paying for decent nursing home care.

But figuring out how to do so has been a challenge — and one nobody's found an answer to since the insurers began aggressively pushing the policies in the 1990s. The National Association of Insurance Commissioners is trying again with a newly-formed task group led by Virginia Insurance Commissioner Scott White.

Insurers have tried for decades to figure out prices for coverage that won't discourage buyers and won't increase as they age — but that might have to pay very big claims decades in the future.

So far, they've been unable to do so and have regularly come back to regulators to ask for stiff premium rate increases.

"They're playing a game; they'll ask for an increase that's not enough, knowing they'll be back in a year or two," said Joseph M. Belth, professor emeritus of insurance at Indiana University.

When insurers began selling the coverage, they had no real way of knowing the size or pace of claims they'd get, he added.

"But the companies were trying to get market share, and they said, 'go and get us some rates so that we can sell some of this stuff,'" Belth said.

Dorothy Knox, of Newport News, told the SCC that while she thought she could handle a modest increase in premiums, "it is also important to note that when we were sold this product, we were assured that there would never be any large rate hikes — yes, no doubt a sales tactic."

Insurers kept initial premiums low and aggressively marketed policies, expecting many buyers to drop coverage when prices went up, said Jim Hunt, a former commissioner of insurance in Vermont and consultant on insurance issues for the Consumer Federation of America.

The idea was, those low initial prices would bring in money that the insurers could invest, amassing a large enough pool to pay when claims began rolling in decades in the future, he said.

"Just when we get closer to needing the coverage, it's priced beyond your ability to pay for it. Seems unjust and appears to be backhanded way to force cancellation of the policy after paying on them for so long," wrote Patricia Smith, of Newport News, adding, "Pure greed."

But the insurers' bets didn't pay off: More people kept the policies than they'd counted on, sending their payouts skyrocketing and driving the repeated premium increases.

Senior Health Insurance says 90% of its latest rate increase request is due to its missed forecasts about dropped policies, with 10 percent due to policyholders living longer than it had thought. Other insurers' filings reviewed by the Daily Press cite the same factors.

"When pricing a product like long-term care insurance, where claims are not anticipated to occur for 20plus years into the future, companies need to predict multiple factors, and that's really, really — yeah, two reallys — hard to do," said Jesse Slome, executive director of the American Association for Long-Term Care Insurance.

Low interest rates on bonds through the 2000s and 2010s cut insurers' investment returns, too, Hunt said.

The years of financial challenge can be seen in rate increase requests filed by Richmond-based Genworth Financial, one of the biggest sellers of the coverage in Virginia.

Claims on some of its oldest policies, dating back to the 1990s, were nearly equal to the premiums it received last year, even after premium increases of 11% in 2002, 18% in 2012 and 78% in 2013. It is seeking a 72% increase now, saying it expects claims to double over the next 15 years.

Its newer policies, sold from 2003 to 2012, were priced higher to correct for the earlier mistaken assumptions about claims and dropped coverage. The company now says it guessed wrong there, too, leading to a 29% rate increase for those policies in 2016 and a new request for a 33.9% jump.

Although claims currently account for only about one quarter of the premiums it receives from Virginians, the company projects the total will quadruple in a dozen years.

In Virginia, 29 different insurers are seeking premium increases generally averaging 50% or more, including a dozen sets of policies for which premiums would more than double on average.

Some are even larger, like the average 200% increase United Security Assurance is seeking for policies originally sold by Trigon Blue Cross Blue Shield. That increase would come after three consecutive annual increases of 26% it received in 2013, 2014 and 2015.

Some of those requested increases, such as the 77% jump sought by Massachusetts Mutual or the 155% Continental General is seeking, are for policies on which claims incurred amount to a small fraction of premiums collected — Massachusetts Mutual's claims so far amount to just 12 cents of every dollar received, while Continental General has paid out 36 cents of every dollar received.

You can read details, including the companies' justifications for the proposed increases, at tinyurl.com/ltc2019rates.

The filings at the SCC show the policies at issue generally cost more than \$2,500 a year, though some are more than twice that. Many policyholders have faithfully paid premiums for decades.

Virginia Beach retiree Edison B. Granger figures the annual premium on the policies he and his wife hold have increased 135% since they bought the coverage in 1999. All in all, the couple have paid \$66,491 for their insurance.

"We are public school retirees ... We cannot afford to continue paying these increases, our \$66,491 could have been put to better financial security," he told the SCC.

At current costs, that's enough money for about eight months of care in a Hampton Roads nursing home.

In a sense, that points to what Belth, the insurance professor, says is the heart of the problem.

He argues that long-term-care insurance is promising something that private coverage can't deliver.

Disputes about whether care is covered are not uncommon — a dozen lawsuits over Ability Insurance's refusal to pay policyholders' long-term-care bills prompted Nebraska regulators to put that company under supervision. Ability is seeking premium rate increases of up to 90% after winning increases of 40.5% to 81.6% in 2014, 31.8% in 2011, 10% to 20% in 2006, and 20% in each of 2002 and 2004.

The third major thing that Belth said makes long term care probably impossible to insure commercially is that it is the policyholder's decision to get care that triggers a claim — for every other kind of insurance, it is a chance event, like a fender-bender or a fire or an illness that brings a claim.

Other structural issues include the level premiums of the coverage.

Like some kinds of life insurance, the idea is that policyholders' premiums in the early years of coverage are far higher than they need to be to cover likely claims, so that the insurer can accumulate funds for the time when the odds of a claim mount as the policyholder ages.

Confusion over this seems to be why so many people who bought the coverage thought they weren't going to face premium increases.

Unlike the kind of life insurance that promises level premiums, however, long term policies don't generate a cash value that can be returned to policyholders if they decide to drop coverage or never use it.

And that points to yet another structural issue highlighted by the Federal Insurance Office of the U.S. Treasury Department: insurers assumed a large percentage of people buying the coverage would drop it.

By and large, insurers in the 1990s, when the business saw rapid growth fueled by an intensive marketing push, based their pricing on the assumption that something like 8 percent of buyers would drop coverage, a U.S. Health and Human Services study reported.

Actual rates have been less than half that, according to the Society of Actuaries, an association of the mathematicians who specialize in financial and insurance calculation.

But they might be about to rise, some policyholders say.

There is another choice, said Slome, at the long term care insurers' association.

Policyholders are offered the option of smaller benefits — for instance, for coverage for a set period of time, instead of unlimited coverage, or for less protection against inflation.

"It's never a take-it-or-leave-it proposition," he said.

The option insurers offer customers — to cut back the amount of coverage their policies will provide, doesn't always help, Robert and Marguerite Allsbrook, of Hampton, told the SCC,

They bought a policy for her in 2002, which at that time charged an annual premium of \$2,047. In response to a series of premium rate increases since, they opted to reduce the sums and length of time to be paid for any long term care, but even so, they're currently paying an annual premium of \$2,981.50.

"No one likes to pay more money," Slome said. "That is understandable, and often left out of the story is the fact that most people's financial situations have changed since they purchased the coverage as well and they accept the insurance company's offer for a newer benefit level ... still quite a bit of protection, often more than they'll ever need."

But Raymond and Marilyn Rebby, of Chesapeake, who said John Hancock raised their premiums in 2013 from \$3,979 a year to \$8,876, after they had already paid \$54,600 over the years for the coverage, told the SCC they feel the latest rate increase verges on racketeering.

"Policy holders want the coverage they paid for, nothing more. When a company makes erroneous projections or releases a defective product into the marketplace, they admit the error and absorb the loss," they wrote.

Virginia Beach retiree Robert W. Lewis Jr., who said his premiums have already increased 75%, agreed.

"Our income is limited. We live on my small retirement which has not increased a penny since I retired in 1990 and my Social Security benefit," he wrote to the SCC, adding, in all capital letters "We do not feel the consumer should be penalized for the insurance companies' inability to estimate the cost involved while they were allowing all these policies to be sold."