Transcript

April 17, 2025

Reppas, Maria (VDH) 0:05

Good afternoon and thank you for joining the Virginia Department of Health's briefing on the 2025 Richmond Water Crisis.

My name is Maria Reppas and I'm the communications director here at the Virginia Department of Health. Today Dwayne Roadcap, the director of the Office of Drinking Water, will provide a general overview of the Virginia Department of Health's findings into the root causes of the water crisis in January and next steps. When he's finished, we will open up the mics for a question and answer portion. Now I'll hand it over to Dwayne for his opening remarks.

RD **Roadcap, Dwayne (VDH)**

Dwayne, thank you, Maria.

I appreciate everyone being here today.

Thank you for attending and learning a little bit more about our investigation.

Couple of quick Thank yous.

I'd first like to thank Governor Youngkin, who provided leadership, direction and resources for the investigation.

One of the things that I learned through the investigation was that Governor Youngkin has a mechanical engineering degree and he knew a lot about what was going on.

When I was talking to him about it, and so a lot of the things that you see in our comprehensive investigation are things that the governor specifically wanted to see in the investigation also want to thank Secretary Kelly, Commissioner Health and the leadership team here at the Virginia Department of Health. I want to give a quick thank you to Mayor Avola and Scott Morris, the director for the Department of Public Utilities.

They allowed unfettered access for our investigation.

They answered hundreds of questions, provided thousands of pages of documents, gave us access to their staff to answer questions, and we really appreciated their time in doing it.

Also want to thank the engineering firm that we worked with to get the investigation done.

That would be Short, Elliott and Hendrickson.
Their team did a great job with us, had lots of good insights, and helped us immensely through the investigation. And then finally, I want to recognize the Richmond Field office and the Office of Drinking Water Staff, who tirelessly worked 24/7 through the water crisis event in early January to help with technical issues and regulatory needs.
So with that, I'll just jump into a quick background. As everyone may remember, on January the 6th, there was a weather-related power outage at the water treatment plant near the James River that provides water to the City of Richmond and surrounding localities that power disruption caused water to flood in an area of the plant where pumps and electrical equipment were located.
Water storage volumes pressure were lost during that week and it didn't return the boil water advisory didn't release until about midday on Saturday, January the 11th.
As previously mentioned, Governor Youngkin directed this comprehensive investigation and provided excellent advice and insights to help push the investigation forward and can't mention that enough we hired the engineering firm SHE, Short Elliott Hendrickson.
To help us with this, do a deep dive in a very short period of time.
They spent about 1500 hours, had over 20 engineers and technical specialists involved in the investigation, and as you can see from the reports that were released, it's very comprehensive.
So what?
You'll see with the release of the information is we have three separate reports.
The first report comes from the engineering firm that we hired that has two parts in it. Part One outlines the cascading failures.
And the events that led to the water crisis.
Part 2 offers a condition assessment of the infrastructure needs and improvements, which we also asked for.
You might notice in that engineering report that some portions are redacted, and that's because we don't want to disclose critical infrastructure that could be used by bad actors or vandals to disrupt water service.
And there's a certain section of the code.
Title 2.2 dash 3705.2.
That allows us to exclude from disclosure critical infrastructure.
In the report from our engineering firm, they identified almost $64 million of

infrastructure upgrades that are needed from our investigation.
Of that amount, about 11,000,000 is likely needed to ensure pumps and electrical equipment can be removed from the area where the risk of flooding occurs.
Our engineering firm and our investigation and people that were at the plant observe that flooding of the clearwells.
They're two large underground storage.
Tanks were filtered.
Water is stored for disinfection and pumping to the distribution system. And what we learned through our investigation was that that flooding was a routine type of an occurrence, such that they had temporary pumps that were set up and established with the routine procedures to to deal with it.
And what we also learned was that the staff thought of that as a normal.
Condition from the legacy design of the water treatment plant.
Which was built in 1924 and expanded in 1950.
Those designs didn't include an overflow for the clearwells, which is a standard design feature for modern day water treatment plants.
And what that ultimately meant was with the plant without having that overflow mechanism, it's critically important that that the power stays on at the water treatment plant.
And that there's processes and procedures practiced and the staff are proficient in.
And making sure that those flooding events do not happen.
The second report that you saw is a crosswalk of the work that the Environmental Protection Agency did in 2022.
They have areas of concern that are outlined in their report and So what we did was is we went back to those same areas where EPA went and we said what progress has been made since in that area of concern from the 2022.
Our observation is, is that the new leadership team with the Department of Public Utilities at the City of Richmond is committed to addressing all of the areas of concern and observations that the EPA made in 2022. And in that report, there were 44 areas of.
Concern areas of concern and 46 observations that should be addressed. Pages 11 through 51 of that report.
When we went back to that, what we found from our inspections.
Were that the areas of concern and observations from 2022 still remain today, and that's one of the things that needs to change.

And again, I believe that the city's leadership team is committed to making that change happen.
The third report is from the office of drinking Water. We call it a sanitary survey, which is really a detailed inspection of the water facility.
It's required once every three years.
There are 8 elements in a sanitary survey and without diving into the elements specifically, I'll just say that they cover the technical, managerial and financial capacity.
Of the water system and their ability to provide reliable and safe drinking water.
Ultimately, the Sanitary survey tells us how the public water systems can and has the ability to do with respect to providing safe and reliable water to the public near the bottom of the first page of that sanitary survey, I'll just point out that there's a note that says.
That the asks whether the city's permit is up to date and you'll see the boxes checked.
Know what that means?
Is that the office of drinking water needs to update the original permit that was issued from 1996 to the City of Richmond.
Also note that the city is performing 150 sampling events per month through its distribution system, and that's how we know that they're providing good quality water.
The water is safe.
There is information on page four about the timeline of events with respect to the last inspection from the Environmental Protection Agency.
That might be of interest to you, and in this report you'll find 89 deficiencies and recommendations.
Of that, there are 12 significant deficiencies. A significant deficiency must be fixed and resolved.
It points to a higher risk of contamination to the to the drinking water.
A minor deficiency represents something that could become a significant deficiency if it's left unaddressed.
And recommendations are items that our staff do not believe rise to the level of a deficiency, but could become a problem if it's not addressed.
Of the significant deficiencies observed, the 12 number six specifically dealt with the water crisis.

Number six talks about the need for that overflow and protection against flooding of the Clearwell.
So that is something that the city will have to address. Several other significant deficiencies are found from the 2022 environmental.
Protection agencies observations.
That would be #1, #7, #8, #9 and #11.
The city must provide a corrective action plan and a timeline within 45 days of being notified of the significant deficiencies.
So let me walk through some of the findings that we had from our investigation quickly.
The city's Department of Public Utilities Leadership and our view allowed a complacent and reactive culture whereby problems and known risks were not addressed.
And that added additional risk for a water crisis to occur.
Occur.
The Department of Public Utilities did not have adequate operating procedures to respond to a power outage.
Staff were not tested or trained for proficiency to respond to a power outage.
Those are things that City's own independent investigation also found.
In essence, I think you could consider the water treatment plant there to be considered two public water systems built next to each other, one built in 1924.
And then expanded in 1950.
And we from our investigation found that if there had been better operational decisions over decades, then the water crisis would not have happened.
And in our view, there were three critical errors made in their operational decision making.
The first one being that they chose to operate the water treatment plant in winter mode during the winter months and what that means is that they were only using the overhead main power feed during the winter months as a cost savings measure.
This unnecessarily created a single point of failure without adequate redundancy, and was the exact wrong season to take the underground main power feed off line in our view.
The Department of Public Utilities has stopped operating in this mode, which is good news.
That's what they should have done.

The water crisis would never have happened if they had been operating in summer mode, such that both the overhead and the underground power feeds were supplying power to the water treatment plant.
The second operational decision that was an error was that the water plant knew the staff working there knew and the leadership knew.
For decades, that flooding was a risk, but they did not properly maintain critical backup systems.
In our investigation, we found that there were flooding events in 2020 and 2021 that could have risked what we saw happen on January the 6th, the Department of Public Utilities manually operated pumps to address the flooding. Those pumps were undersized.
They couldn't do the pumping that was needed.
The pumps were difficult to prime and they were difficult to start in cold weather, which is what we found from our investigation, and we also found that staff were not adequately trained on emergency response, especially with respect to dealing with a power outage.
One of the other things I'll point out on the comment about they've known this for decades is in the late 1980s, the Department of Public Utilities contacted the Office of Drinking Water and reached out about.
Increasing the flow rate to the clear wells, basically doubling it from 2 gallons per minute to four gallons per minute.
This would increase the risk of a flooding event when you know that you've got flooding that can happen there. By 1996, they received approval for their request.
The city never revealed to the office of drinking water that the Clearwell was flooding at times, which required temporary pumps to be established and set up.
And keep in mind that the regulatory standards are minimum requirements to protect public health and drinking water just because the regulations allow an activity such as increasing filter flow rates, it does not mean that it's a good idea or should be done as the owner and the Oper.
Of the public water system, the city of Richmond must decide whether any operational decision is a good idea before asking the office of drinking water to approve it.
And in essence, the water crisis might have been simply because of a complacent culture, which is what we think it was, that it was not taking a proactive approach and understanding the risks that were involved.

There was an institutional normalization and acceptance as our engineering firm reported and essentially what that meant was, is that people accepted as normal. What it what shouldn't be accepted as a normal and so?
Instead of actively managing risks, what we found through our interviews and our investigation was that staff were in a reactive mode.
They reacted to events such as the flooding event, their emergency response plans were ineffective.
They did not replace or maintain their battery backup power systems, which also if that had been done, would have prevented the water crisis.
And lastly, what I'll point to is another operational decision by by the Department of Public Utilities.
That was not in their best interest or in the public's interest, was to continue to allow the older plant to be operated mostly in a manual type of condition.
There needs to be more automation at that water treatment plant.
An example would be the backup diesel generators.
They were useless during the water crisis because of that winter mode operation, creating that single point of failure without adequate redundancy.
Those generators needed to be manually operated.
They weren't able to manually operate them in a QuickTime fashion, with the flooding events that were known, there was insufficient staff at the plant with a known weather event with declared states of emergency from the mayor and the governor.
And that.
Just that high dependence on manual operation at the plant needs to change.
So ultimately, these three operational decisions in our view is a reflection of a complacent culture where staff allowed unacceptable situations to persist.
Staff accepted something as normal and just rather react and reacted to it rather than proactively communicating and resolving problems.
Both the city's independent investigation and our investigation identify significant operational, procedural and engineering failures.
That led to the water crisis.
It was preventable.
It was avoidable and it shouldn't have happened.
The Virginia Department of Health determined through its investigation that these critical failures in the water treatment plant systems, the emergency protocols and

the overall management practices, the culture of being more complacent and reactive was a cause of the water crisis.
So what are the next steps?
With the release of the of the Virginia Department of Health Investigation, you will see US issue another notice of alleged violation to the City of Richmond and we will ask for a corrective action plan and timeline as part of those 12 significant deficiencies that we've identified the city.
Will have 45 days to provide a response to that. When our notice of alleged violation is issued, which I would expect to happen within the next two weeks.
You'll see that in The Newsroom and the digital toolkit when it's ready.
The Environmental Protection Agency has been working with us.
We've been collaborating with them.
They are aware of our investigation.
They've given us feedback on things to look at and they've been really good partners for us here in Virginia and I've appreciated the Environmental Protection Agency's help while we do our investigation. To date, the Environmental Protection Agency hasn't decided that it needs to come down and do an inspection at the plant.
In essence, because of our comprehensive investigation.
I'd also like to take a moment and touch on a new law that's taking effect on July the 1st of this year.
It's HB2749 from Delegate LeVere Bowling and Delegate Philip Scott also had a companion bill that was rolled into that it will.
It will add to Virginia code section 32.1174 point 5.
A requirement for public water systems to submit to the drinking water within two hours notice of any event that would have an impact on water pressure, reliability or the water quality it started out as a six hour notice.
Governor Youngkin determined that that should be two hours.
I support that.
It was a good decision.
And so I welcome the fact that going forward, public water systems will notify us quickly within two hours whenever there's an event that is a critical failure that will impact water quality or water pressure for a large population.
We have resources and connections here at the office of drinking water. We're looped in with the Virginia Department of Emergency Management with the Environmental Protection Agency.

And we can move resources with our office of emergency preparedness here at the Virginia Department of Health and Make Things happen quickly when a crisis happens.
So in closing, I want to again thank and recognize Governor Youngkin for his leadership without his guidance and direction, I would not be here with you today talking about what needs to change at the Department of Public Works with the City of Richmond.
I also point out that water is essential for life and our economy.
The Department of Public Utilities has one job to do as the owner and operator of a very complex public water system. It must do that job right without fail every day 24/7 365 days out of the year. It must provide safe drinking water.
To hundreds of thousands of people.
Businesses, hospitals, schools and healthcare facilities.
It's a really important job as we all understand and recognize from the water crisis. Realistically and. And the reality is, is the Department of Public Utilities did not do its job. It failed.
As previously stated by many, the water crisis was completely avoidable and should not have happened if the water crisis alone was not enough to make the Department of Public Utilities change. I can, I can assure you that our follow up and our work with them will make that.
Change happen.
Culture doesn't change overnight.
It's going to take some long term.
Effort and work from the Department of Public Utilities.
I am confident in Scott Morris.
I am confident in the Department of Public Utilities leadership team. They have done a great job and and working with us since the water crisis and what and the types of things that were going on that led up to the water crisis.
I can thankfully report I'm not seeing that today.
With that said, culture takes time to change.
Thank you.

Reppas, Maria (VDH)

Excellent. Thank you for that overview, Dwayne. Before we begin the question and answer portion of today's call, I'd like to remind everyone that our call is focused on the Virginia Department of Health's findings on the 2025 Richmond Water Crisis.

For other questions, please contact our press office or we begin.
I'd like to remind you to raise your hand in teams if you'd like to ask a question and limit your questions to one question and one follow up per person.
Please remember to unmute after I call.
Your name now.
We'll begin the question and answer portion.
First question goes to Melissa Hippolyte of WTVR.

HM **Hipolit, Melissa** 21:55
Hi, can you hear me OK?

RD **Roadcap, Dwayne (VDH)** 21:57
Yeah, we can hear you now.
Thank you, Melissa.

HM **Hipolit, Melissa** 21:58
Great. Hi, Dwayne. Thank you so much for doing this.
That was a lot to get through.
I wanted to read you a small portion of the SEH assessment, it said. Neither consultants nor regulators raised red flags concerning the water treatment plant design limitations over many years, which gave DPU staff the false impression that problematic issues were not urgent to address.
Of course, VDH is a regular.
So why did VDH never raise these concerns in the past and force DPU to fix them?

RD **Roadcap, Dwayne (VDH)** 22:33
Thank you for the question.
Simply put, we didn't know.
We didn't know about it.
We learned about it during the water crisis investigation.
So if you look at our current regulations, the Department of Public Utilities had a duty to report to us within 24 hours any flooding event of the Clearwell that didn't happen.
And so I think what our engineering firm was recognizing also is that.
Permit approval in 1996.

For them to increase the filter rate, basically doubling it from 2 gallons per minute to four gallons per minute. And as I said in my commentary, we as regulators need to know what we're dealing with when we're examining whether something should be approved or not. It's on the City of Richmond and it's their obligation to make sure that we understand and know what the risks are. The city's consultant that engineering firm from back in the early '90s.
1990s didn't raise it as an issue, even though, based on our interviews and our investigation, the staff working at the water treatment plant knew that flooding was happening and it knew it was happening.
We know it was happening in two ways that they had it as part of their emergency response plan.
And the staff, you know, told us that this had been going on for decades where they had brought it to the attention of their management.
And it still wasn't addressed adequately. And So what that leads us to is where the engineering firm came to the conclusion about the institutionalized normalization and acceptance concept, basically saying that the flooding events that the Department of Public Utilities knew was going on, they thought it.
Was just normal.
A legacy design from the older plant.
That was built in 1924/1950 and didn't think it unusual enough to bring it forward to people either to their own consultants or to the office of drinking water.

HM **Hipolit, Melissa** 24:42
So you're saying that VDH they had no way of knowing about these red flags prior to the water crisis?

RD **Roadcap, Dwayne (VDH)** 24:51
I'm saying we did not know it.
Now that gets into a deeper question because as I said earlier, we do a deep dive inspection every three years at the water treatment plant. And one of the things that we do when we're doing that deep Dive investigation is we're asking questions and we're looking.
For problems and issues that that need to be followed up on so our inspectors did not identify it.
So unless we were there when the flooding was actually happening.

Or if our perhaps our inspectors would have noticed the temporary pumps, that might have been set up and asked a question about it, I can't go back in time and say that we should have caught something that we didn't know existed.
I'm saying that it might have existed, but we didn't see it.

Reppas, Maria (VDH)
Excellent. Next question is Graham Moomaw from the Richmonder.

GR **Graham Moomaw/The Richmonder** 25:46
Hey, Dwayne, thanks for doing this.
The city has said they see a lot of overlap between the report HNTB did and the investigation. The state just did.
But it seems like Commissioner Shelton indicated that she saw a clear contrast between the two.
Can you talk a little about what similarities you see between the two and what you think the state found that is significantly different from what the city found?

RD **Roadcap, Dwayne (VDH)** 26:08
Sure. Thank you for the question.
The similarities that I see are dealing with the emergency response procedures, the timeline.
They're both engineering firms and our investigation recognize that the city didn't have standard operating procedures that.
Were trained with their staff that.
Were exercised with their staff and that their staff wasn't aware of what their responsibilities and roles should be.
As part of a power outage, and so those similarities exist in both reports. I think there's similarities around communication, that communication could have been and should have been much better.
And so if you look at the timelines, the communication, the emergency response, the emergency preparedness, there's a lot of similarities.
There's a lot of agreement about a power outage shouldn't create and cause a water crisis.
That that's a similarity.
Now, where the differences go I think could reside in the fact that the city had its

own contract for its own engineering investigation, and it had its own interests of what it wanted to find out as part of its independent investigation.
And so I think that their engineering firm and their independent investigation focused on the things that the city really wanted to know more about.
As the regulator with the Virginia Department of Health, we came into it and we asked our engineering firm to do some other things, some different things than what necessarily.
The city of Richmond asked for one being a condition assessment, so one of the things you see in our report is that our condition assessment identifies 64 about $64 million worth of infrastructure upgrades that are needed there at the water treatment plant including.
About $11 million.
To deal with that overflow issue on the Clearwell, the other difference that I think is really critical is is we took more of a systems thinking systemically, looking and more comprehensively looking at, OK the battery backup power systems didn't work. Why?
And then when we dug into.
That question a little bit deeper. What we learned and found was is that.
This complacent culture existed.
Where people were reactive and not until the UPS or the battery backup systems would cause a problem would they react to it.
And in contrast, they should have had a more proactive what we call asset management, making sure that your critical infrastructure, your assets.
Are routinely checked and replaced, and that battery backup system was really critical.
Especially for this plant and it was past its design life and they hadn't been checking it to make it work. During our interviews, staff told us that they knew that it didn't work and that gets into that complacent culture.
They were accepting things as normal, which they shouldn't have accepted as normal.
And so that that sort of speaks to some high-level differences.

Reppas, Maria (VDH)
Thanks Dwayne.
The next question goes to Sabrina from Axios.

Sabrina Moreno 29:42
Hi, thank you so much.
My question is about.
Can you guys hear me? OK, cool.

Roadcap, Dwayne (VDH) 29:49
Yeah, we can.

Sabrina Moreno 29:50
Perfect. So the City Health Commission recommended leveraging the millions. Richmond residents unlikely pay and hidden utility charges via pilot payments to go specifically toward utility projects.
I'm curious if the city has responded to that recommendation.
You know, have they shared whether they agree in the likelihood of there being any changes regarding where those payments go?

Roadcap, Dwayne (VDH) 30:13
I have not received any feedback directly in an official capacity from the city about their view of that. The Commissioner and her cover letter to the governor sort of addressed that, you know, from our perspective within the office of drinking water and with the Virginia Department of Health.
We believe that the ratepayers and those who are paying for the water system that that funded that funding.
And those payments should remain in the enterprise funding of the public water system.
We also observed, you know, based on our review with the engineering firm and reaching out to some other experts, we believe that funding could be leveraged to provide up to $80 million in infrastructure.

Reppas, Maria (VDH)
Don't have any other next questions lined up.
Please raise your hand.
The option is at the top and the top menu. If you'd like to ask a question.
The next question goes to Sierra Krug from WIRC.

Sierra Krug 31:21
Hear me. OK. Perfect.

Roadcap, Dwayne (VDH) 31:23
Yes, we can.

Sierra Krug 31:24
I apologize for any repetition.
I just really want to make sure I'm understanding everything correctly.
This goes back to Melissa's question from earlier, but you had mentioned so that sanitation survey conducted every three years by your team was the last one in 2022.

Roadcap, Dwayne (VDH) 31:41
Essentially yes.
That's when we were there with the USEPA and the way the regulatory oversight works is, is that the drinking water program is a federal program.

Sierra Krug 31:45
OK.

Roadcap, Dwayne (VDH) 31:52
So it it derives its existence from the federal government, which is administered through the Environmental Protection Agency, the Environmental Protection Agency gives states the opportunity to ask for primacy, which means that we can be a Co regulator with.
The Environmental Protection Agency and in Virginia, we do that so that when we're working with our public water systems, we have Virginians helping Virginians and we act as a collaborator with our EPA partners.

Sierra Krug 32:31
OK.
So even though you guys were in collaboration, it wasn't necessarily on you guys to identify the issues that could have been flagged as urgent.
Is that correct?

Roadcap, Dwayne (VDH) 32:42

Well, I mean and and certainly we would have wanted to identified it, right.
And so this gets to the cultural thing that we were talking about, the faulty culture and and the staff at the Department of Public Utilities accepting as normal something that they shouldn't accept as normal. And the flooding events were known.
And unless you're there while the flooding is happening, you're not necessarily going to know that it exists, and the only clue maybe.
Absent someone telling you about it.
Would be that the city of Richmond had set up temporary pumps in that area because they knew of the frequent flooding events, and so our best understanding based on our interviews and our investigation, is that the the Department of Public Utilities, both the staff and the management, just.
Accepted that flooding as a normal condition from the older water treatment plant.
And they didn't have to accept it.
And then they.
And then that complacent kind of culture and that thinking led to more of a reactive response network that that sort of followed from that. And what we're saying is, is that we need.
The Department of Public Utilities Culture to change.
We need them to be able to feel free to communicate issues, identify issues.
It goes back to the old saying. If you see something, say something.
Don't necessarily think that they already know the regulator being they because we didn't.

Reppas, Maria (VDH)

Next question goes back to Sabrina from Axios.

Sabrina Moreno 34:23

Thank you again.
So I wanted to go back to something you mentioned the beginning that those quicker water emergency alerts, you know no more than two hours after finding problems.
I'm curious if you could talk about how likely that notification time frame is.

You know how quickly operators usually flag you guys now and kind of how having that lawn place during Richmond's water crisis could have helped?

Roadcap, Dwayne (VDH) 34:47

So great question. Thank you for that.
The reality is, is that.
The law says within two hours, and so it makes it known it makes it a legal obligation.
There's some consequences if you don't follow it with it being in the law, the current regulatory requirement is within 24 hours with the 24 hours what we were communicating with our regulated community.
We have 2860 public water systems in Virginia.
We were informally telling them, hey, if you got a problem, reach out, call us. We can help.
And so informally, those conversations were happening formally.
You only had to notify within 24 hours.
Now that there is a law with consequence.
To say you you must notify within two hours.
We'll I think we'll have better responses.
And if if the city of Richmond had notified us within two hours on January the 6th, a lot of things could have happened. We could have been out there sooner.
We could have understood more quickly how significant the event was that was happening.
We could have contacted hospitals through the Virginia Department of Emergency Management, the Hospitals Health care facilities. Businesses would have had more time to prepare for the forthcoming loss of water pressure later that day.
By the time the office of Drinking Water found out about it in the afternoon on January, the sixth people were already starting to lose water pressure.
That's how we found out about it, and that that's not, that's not good.
That's not what we need, and that's not how the system should operate.
We need better communication.
We need more proactive communication and we need to know exactly what is happening.
And so I hope, I hope that helps.
Because we have a lot of connections, a lot of expertise.
We're the emergency support function 3 for water, wastewater infrastructure, dams

and buildings within the Virginia Department of Emergency Management structure.
And so we routinely work and exercise and plan for crises here at the office of drinking water.
We're 24/7 operation.
We're monitoring for events.
Every day, 365 days out of the year.
Within our office, and we do that in coordination with our office of Emergency preparedness here at the Virginia Department of Health and with the Virginia Department of Emergency Management.
And we do that with the Environmental Protection Agency. So the sooner we know, the sooner we can start getting things prepared. And one of the things that really was upsetting was that the hospitals and the healthcare facilities and the businesses.
Ran out of water.
Without a lot of notice and and we can't have that happen again.

Reppas, Maria (VDH)
Thank you, Dwayne.
The next question is for Graham Muma of the RICHMONDER.

GR **Graham Moomaw/The Richmonder** 38:01
Yeah. So keeping on the state policy front, the report recommended maybe identified what could maybe be called a loophole in state policy where you have a really old facility like Richmond's and they're kind of grandfathered in and don't have to comply with modern design standards for a.
Water treatment plant that would be built today.
Do you concur with their recommendation to maybe close that loophole?
Change that policy and if so, what would the how big of a challenge would that be for Richmond to bring its facility up to modern standards?

RD **Roadcap, Dwayne (VDH)** 38:32
Great question.
So I'll give you a quick analogy. If you've got an existing home that was built 100 years ago and you want to build an additional into the home in the building code, the new part has to meet the new rules. You don't have to go back into.
The old part.

Unless you're doing things in there to meet the current code and so that this this perspective of.
Of what we call a grandfathering, a grand parenting provision.
And the regulations sort of recognizes that if you have aged older things that are built under different rules at the time it it, it is unfair and maybe too expensive to ask for them to make everything up to current standards, that we would focus on the new thing.
Meeting the current standard and so one of the observations from our engineering firm is, is that we should go back and look at that and how we implement it.
Because if you go back to the late 1980s, when the city of Richmond was bringing forward this proposal to increase its filter rates, and there was recognition that there wasn't an overflow but not necessarily known that it was flooding there.
That maybe we could have addressed it back in the late 1980s, early 1990s.
And I I think that's a Fairpoint and I think we we as an office need to revisit that with our stakeholders.
We have an advisory committee and there's a process where we work with stakeholders to try and get to the right policy call on something like that.
So hopefully that gets to your question.

Reppas, Maria (VDH)
Excellent. Thank you.
The next question is from Melissa Hippolett from WTVR.

HM **Hipolit, Melissa** 40:22
Hey Dwayne again.
So you're saying that you would have had to see flooding to identify some of these problems. However, you know what about the winter mode operation that they had going there?
What about the lack of upkeep on their parts like the ups?
What about the manual operation of the generators?
Or the fact that the electrical equipment was located in this basement area, you know, are those things that you feel like your folks should have identified when they went out into these surveys?
As problems that needed to be fixed right away.

Roadcap, Dwayne (VDH) 40:57

In in hindsight, we're learning from this as well, right?
And one of the things that we're revisiting is how we do our inspections and the questions we ask.
So I'll give you a quick example.
We might go out historically and we would say, do you have your emergency generators running?
And the answer will be yes.
And then we'll say, OK, great.
When's the last time you tested your your backup diesel generators?
And then and then a date would be given.
And we would accept that at face value.
And I think going forward, what our team is learning is is we we need to go another level.
Don't accept it at face value, you know.
Give us some more information.
Let's talk to the person who exercised the backup diesel generators. When we're out there. Let's take more time and dig a little bit deeper. When we're out there with the operators and the maintenance staff and an dive a little bit deeper into some of these issues.
'Cause, we certainly don't wanna see this happening again.
I think there was.
The possibility that we were relying too much on the information being given and we just need to do a better job of digging deeper when we get information from people.

Reppas, Maria (VDH)

Thanks Dwayne.
Just a reminder, if you do have a question, please raise your hand.
The option is in the menu bar at the top of the screen in teams.
The next question goes to Graham from the Richmonder.

Graham Moomaw/The Richmonder 42:31

Yeah. I just wanted to be absolutely clear what the finding was on the batteries, is it?
Is it that they just completely did not work at all?

They didn't do a thing.
Or is it that they just did not last? They gave some power, but didn't last as long as they were expected to last.

Roadcap, Dwayne (VDH) 42:45
I think it's the latter, Graham. I think that they worked for a little bit, but they didn't work as expected.
And my point was is when we were doing our investigation and our interviews and listening in to the interviews that the City of Richmond's independent contractor was doing, what we were hearing was that it was a known issue among staff.
Now, whether staff thought they didn't work at all or they just weren't going to be effective.
For dealing with a flooding event because their routine practice was to just go turn on the manual pumps when the flooding events started.
I don't know to what degree the staff thought that they did not work, but my understanding is that the battery backup didn't work as long as it should have and it was past its design life and it wasn't properly.
Maintained.
And it wasn't properly checked.
And if those things had been done properly, checking it, making sure that you didn't continue to use it after it was passed its design life, the water crisis would not have happened.

Reppas, Maria (VDH)
Thank you, Dwayne. Any other questions?
Reminder to raise your hand if you have any additional questions.
Awesome. Sarah from 12 on your side is next.
Sarah, you may be on mute.
On your end.

Sarah Chakales 44:37
Am I unmuted now OK.

Reppas, Maria (VDH) 44:38

There we go.
Now we can hear you. Thank you.

Sarah Chakales 44:40
Thank you. OK. And I, I apologize if I missed this in the 314 pages, but the corrective action plan, can you go into a few more details about that?
Is there a timeline?
Are there certain goal posts that the city needs to meet?
What? What are the details on that?

Roadcap, Dwayne (VDH) 45:02
Yeah. So, so we identified 12 significant deficiencies.
And of those 12 significant deficiencies, one was specifically related to the water crisis.
And in each of and, then there were another five that were associated with the inspection from 2022 that still remain unresolved.
And so the city of Richmond will have 45 days from notice of to provide us with a timeline and their corrective action plan.
And when we receive the city's proposed corrective action plan and timeline, we will evaluate it, determine whether we think that's an appropriate timeline and work with them to get that approved and finalized and the mechanism which we would like to document that would be through an.
Order of some sort, either a consent agreement.
A consent order or a special order.
So where we're where we're talking with the city of through.
Is trying to come through a written agreement on their corrective action plan and timeline.
I will say that the city has been very cooperative.
They are tuned into this issue.
They're working on a corrective action plan.
They have been. And so I know that we're going to get this fixed and the timeline remains to be seen. One of the things I'll emphasize as part of the answer is that.
The city of Richmond operates this water treatment plant.
They own it.
We as the regulator, we monitor that to the extent that our resources allow and we

provide regulatory guidance and then we also give input and oversight on the compliance and the enforcement.
So.
We since we the Virginia Department of Health, do not operate water treatment plants, we tend to make sure that the city has a good plan and that it's appropriate. Be it given where they are, the city's made a lot of changes since the water crisis. They've changed their organizational structure, they've changed their management. They're more actively updating their standard operating procedures. They are working with some engineering firms to firm up their plan on some of their infrastructure upgrades.
As I've heard already reported, they've spent $5,000,000 upgrading their battery backup system.
Their valves, their actuators, the switch gear.
So we are we are seeing a more active, more transparent, more commutative leadership there with the Department of Public Utilities.
And so far I've been very pleased with how they've been moving forward from the water crisis.

SC **Sarah Chakales** 47:58
OK. And we'll all be updated once that timeline is proposed and approved and agreed on.

RD **Roadcap, Dwayne (VDH)** 48:05
Yes, our goal is to post all of this online and you'll be able to find it online at the usual places where you got the materials today and on our incident page.
Dwayne's correct.
We have a section in our newsroom on our website devoted to the Richmond water crisis, so any publicly available documents will be posted there.

Reppas, Maria (VDH)
The next question goes to Melissa Hipolit of WTVR.

HM **Hipolit, Melissa** 48:34
I just wanted to double clarify Graham's last question and I went back to the SEH assessment and in that assessment about the batteries, it says that they failed

immediately.
So I want to make sure that my reporting is accurate. If I cite that line and that report, is that accurate? Or is it what you're saying where the batteries work for a little bit?

RD **Roadcap, Dwayne (VDH)** 48:57
Yeah, so I'm conflating both the city of Richmond's independent investigation and its findings with our investigation.
Our investigation said what you report and what you find in that engineering report from us.
My understanding, as I remember from the city's independent investigation, that there that they work for a small period of time.
So what?
I know that our engineering firm did.
I don't know exactly what.
Richmond's contractor did, but on our side of it, our engineering firm looked at the control room data.
It it's, you know, there's a SCADA system, supervisory control and data acquisition system, which is basically the mainframe control room data.
And looking through the information that they could discern from their interviews and the data that was the result that our investigation found.

Reppas, Maria (VDH)
Thank you, Dwayne. Any other questions?
Reminder, if you'd like to ask a question, please raise your hand. That option is available on the top menu.
It's like we don't have any other questions.
Speaking very slowly.
Just make sure we've got. Everybody's got all their questions answered.
OK. All right. Excellent.
Thank you so much. Before I close out, Dwayne, is there anything else you'd like to add that you think members of the media would like to know?

Roadcap, Dwayne (VDH)
No, I appreciate everyone being here and reporting on the investigation.
I think it will help ensure accountability and I appreciate that.

Thank you.

Reppas, Maria (VDH)
All right. I want to thank everybody for joining our call today.
There will be an audio recording posted on the Virginia Department of Health website newsroom, as well as a transcript that should be up either today or tomorrow. You'll be able to access everything in the section I cited before, as well as any publicly available reports that we.
Allowed to publish. Do you have any further questions?
You remember something later.
Please give one of our members of our communications team an e-mail or a call.
Thank you so much everybody and have a good weekend.

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