From: <u>Virginia Scott</u>

To: <u>Coffin Butte Landfill Appeals</u>

Subject: Uphold Planning Commission Denial of LU-24-027 – Fire Rebuttal from July 1

Date: Tuesday, October 7, 2025 3:24:31 PM

Attachments: Fire Rebuttal July 1 BoC.pdf

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

This is Fire Rebuttal from July 1, 2025 testimony in opposition to the expansion which was part of the Planning Commission's unanimous decision to Deny, which I believe the County Commissioners should consider.

This document expands on the VNEQS submission in response to the Applicant's various responses to issues raised by VNEQS submitted June 10, 2025. My testimony addresses the subject of fire.

Sincerely,

Virginia Scott

October 7, 2025

To: landfillappeals@bentoncountyor.gov

Subject: Uphold Planning Commission Denial of LU-24-027 – Fire Rebuttal July 1

Dear Benton County Commissioners Wyse, Malone and Shepherd,

My Credentials:

Soap Creek Valley Firewise Co-Chair

Studied Fire with: Oregon State Fire Marshal (OSFM), Oregon Department of Forestry (ODF), OSU Extension, Oregon Emergency Management (OEM), Insurance Institute for Business and Home Safety (IHBS)

Landfill Adjacent Homeowner Since Mid-90's Resides in the Odor "Shadow" of Coffin Butte Witness to Changing Ecosystem

I am writing because I strongly oppose any expansion of the Coffin Butte landfill and urge you to <u>uphold your Planning Commission's unanimous denial of LU-24-027</u>, Republic Services' application to expand the Coffin Butte Landfill. The Planning Commission carefully considered all evidence provided by the applicant, as well as considerable testimony, and concluded unanimously that the application did not meet the required Burden of Proof.

I appreciate the opportunity to comment on the future of the Coffin Butte Landfill, a decision of great concern to our community.

I appreciate this opportunity to expand on the VNEQS submission in response to the Applicant's various responses to issues raised by VNEQS submitted June 10, 2025. My testimony addresses the subject of fire.

As stated in VNEQS submission, "two additional fires have occurred (a "hot load" dumped in Philomath, and a fire at the propane refueling facility). Those fires place areas of Benton County that are far removed from the landfill at risk."

In my testimony I posed several questions regarding if landfill and PRC fires has been reported to Oregon DEQ as required in their permit. To this end a request was made to ODEQ for information on Republic Services' fire reports.

This is the request that went to Oregon DEQ for information on fire reports:

Hello Oregon DEQ – from various documents I understand that landfill operators are required to send DEQ a report about fires at their facilities. So, my request: I'm looking for communications, from January 1, 2022 to the present day, between the Coffin Butte Landfill operator (known variously as Republic Services or Valley Landfills) and Oregon DEQ, about fires either at the landfill or at its companion facility, Pacific Region Compost (PRC), and any reports or other attachments. Thank you! – Ken Eklund

This is the table of fires that Adair Rural Fire and Rescue has responded to at or near the Landfill, PRC, surrounding area and Motor vehicle fires for the same time period of January 1, 2022 to the present:

Year	Landfill Fire	PRC Fire	Nearby Fire	MVA
2022	0	2	8	17
2023	2	0	13	8
2024	5	2	11	12
2025	0	2	11	12
Total	7	6	43	49

Below are the only two reports submitted by Republic Services to ODEQ regarding fires during this time period. Two is a far cry from thirteen. As I pointed out in my Fire Risk testimony, there are other fires that have occurred at the landfill, which Adair RFD did not respond to and Republic Services did not report to ODEQ.

October 31, 2023 PRC (Report of fire that occurred on October 30 and was reported by a citizen to the county, then by the county to ODEQ)



Reply from ODEQ after inquiry from the county:

It's my facility, and Ian McNab with PRC notified me of this incident at 1444 on 10/31, in compliance with the fire notification requirement of their permit.

Best,

Craig C. Filip (he/him/his)

Solid Waste Permit Specialist

DEQ - Eugene, (541) 686-7868

Below are pictures of this October 30, 2023 PRC fire as captured by a resident:















The movie above at the following link shows the full extent of the smoke plume as it pans from north to south:

 $\frac{https://photos.google.com/share/AF1QipNf4CCIdYXvQct6Bk2xbwM6GUFFrk4XJc4POyqAlDwdy1ciCafKCjlgydBTHXBzBw?}{pli=1\&key=ZDRmSHVPZnVDbGx6eWxFYzdqdzVWRVh6X01uMXhn}$

This is the resident's report of this event. A recipient from the county sent it to DEQ.

"While biking yesterday evening on Camp Adair Road (north of Corvallis), I noticed a huge cloud of smoke coming from Republic Services' composting facility ("Processing and Recovery Center" or PRC). I was concerned about the fire, so I went to see if I could find someone from Republic Services to talk to. Unfortunately, no one was in the office or at the weigh station. I've created an album with photos and videos showing the smoke coming from the smoldering file which you should be able to access here: https://photos.app.goo.gl/q59s9dimFMhVVZkZ6 (please let me know if you're unable to view the images and videos). I've attached two of the photos for reference below.

The smoke from this fire was drifting over a large area south of the facility, extending roughly 2 miles south on Independence Highway. It had earlier drifted a long way to the east, along Camp Adair Road, extending to Springhill Road (before the wind shifted). The intensity of the smoke definitely made it unhealthy to breathe. I had to hold my breath while biking through the worst of it (and changed my route to avoid it).

I would like to know more about this incident. Were you aware of it? I can only assume it was an unplanned (and unpermitted) incident. Does the PRC operate under a permit from DEQ? If so, does the permit allow these kinds of unplanned fires? What corrective action(s) will be taken to prevent these kinds of events in the future? Will any fines or other measures be taken to stop this kind of pollution from happening in the future?"

May 19, 2024 Landfill Fire



As a reminder this was the report from Adair on the same fire:

"At 7:04pm, Saturday 5/18, Adair Fire was dispatched to a smoke investigation at the top of the Coffin Butte Landfill. Firefighters arrived to find burning trash damaging both hydraulic transfer truck lifts. The lift fires were quickly knocked down. We greatly appreciate the assistance from Corvallis Fire to send an additional fire engine and tender to help extinguish the trash. Landfill employees operating a dozer and backhoe were instrumental in the effort to completely put the fire out. Adair Fire was on scene for 1 hour and 25 minutes."

Note that both Adair Fire and Corvallis Fire were involved in extinguishing this fire. Also of interest is that if one public load is suspected as the "cause" (per RS ODEQ email), how did two hydraulic transfer truck lifts get damaged?

Shouldn't a Standard Operation Process (SOP) report to ODEQ on a fire include other details like: the type of fire, cause, location, duration, environment exposure, staff exposure, if Adair Rural FD was called, if there was a mutual assist from additional fire departments, how the fire was reported and by whom, what effort/measures were taken to extinguish the fire, what remediation steps were being taken to prevent a similar future fire, etc.?

If Republic Services' SOP states that fires will be reported to ODEQ, why were only two of thirteen known fires involving Adair Rural FD reported to ODEQ in the period of January 1, 2022 to the present?

8. Fire. The Applicant submits the attached June 5, 2025, memorandum from James Walsh of SCS Engineers (Applicant's Ex. 44) responding to testimony on fire risk at Coffin Butte Landfill.

In the event of any temporary shutdown due to an emergency, catastrophic event, or landfill fire, DEQ will be notified in accordance with OAR 340-239-0700(3)(n).

From James Walsh Rebuttal on June 5 to Public Comment:

3. Reporting Fires at Coffin Butte Landfill

Comment: It was suggested that Coffin Butte compile a running log of landfill fire incidents. And develop Incident Reports for each landfill fire. And that the Landfill's Operations Plan commits it to report each landfill fire event to OR DEQ.

Response: In response to community comments related to being apprised of fire events, Coffin Butte will maintain a log of fire incidents at the Landfill and a Coffin Butte representative will provide a verbal report on fire events at each Benton County Disposal Site Advisory Committee meeting. Further, Coffin Butte will ensure it is reporting each fire event to OR DEQ.

VNEQS' Rebuttal: Republic Service's Permit already requires that they submit a fire report to Oregon DEQ. Republic Services is failing to comply with this requirement now as evidenced by 2 fire reports out of 13 fires, so there is no reason to believe that they would keep this commitment in the future.

REMINDER: APPROVAL WITH CONDITIONS IS THE SAME AS APPROVAL WITHOUT CONDITIONS

4. Magnitude of Landfill Fire Risks

Comment: One public commenter cited the SCS report as identifying 5 fires at Coffin Butte Landfill from 1999 to 2025 which they suggested was inconsistent with records from Adair Fire that report 28 calls for fire at the Landfill between 2013 and 2025. It was further stated that the SCS report identified 3 types of landfill fires that represent a material risk. There are many additional fire risks beyond those 3. The commenter concluded that the SCS report drastically under-represented the number, types, and magnitude of landfill fire risks.

Response: As the report makes clear, the 5 fires reported were those material and memorable to landfill staff, and representative of each of the 2 kinds of landfill fire that the landfill has experienced to date: working face fires and grass fires. It wasn't intended to identify any and all fires. Further, the landfill is confident there are only 3 types of landfill fires that could pose a material risk at Coffin Butte Landfill. Any others beyond those 3 have never occurred at the landfill, and we do not have a reasonable basis to believe there ever will be. The report fairly represents the number, types, and magnitude of landfill fire risks. Fires at the landfill have been safely and correctly managed to date, and will be so in the future, ensuring no significant impact on the community or environment.

The landfill abides by the state of the practice for landfill fire management like at any other modern MSW landfill. Many will recall the 1999 landfill fire that was significant. That was when the site was owned and operated by the prior operator, not Republic Services. The only way that could have occurred is if many acres of waste were left uncovered and exposed for weeks on end. Republic covers all waste at the confined daily working face at the end of each working day, with very few exceptions which are quickly addressed. There is no reasonable basis to believe that a fire of that size would reoccur with Republic Services.

Comment: It was reported that the 4,000 gallon water truck on site is defective, does not work, and would offer no value in extinguishing landfill fire.

Response: That statement is completely false. Landfill staff report that the subject water truck has been in continuous service in past years and is fully available at all times to help extinguish fires. In fact, that truck has been employed many times over the years to help extinguish both grass fires and working face fires. **VNEQS' Rebuttal:** The water truck cannot operate on the steep landfill slopes and water is ineffective at extinguishing lithium battery fires (which also do not require oxygen to burn)

June 20, 2025 File No. 27223197 MEMORANDUM TO: Republic Services

5. On-Site Water Truck

FROM: James Walsh, P.E., BCEE, SCS Engineers

SUBJECT: Rebuttal to Public Comments Received June 2025 To Benton County

Planning & Zoning Commission On Landfill Fire Potential at Coffin Butte Landfill From Valley Neighbors for Environmental Quality and Safety

#6. FACTUALLY INCORRECT STATEMENT BY CONSULTANT WALSH: "There are three plausible fire scenarios (working face/grassed area/gas well fire." IN FACT, there are many, many more plausible fire scenarios, including many that would endanger lives and property well beyond the area of the landfill itself:

• PLAUSIBLE SCENARIO 1: a dumped "hot load" (fire burning in the garbage truck, so to minimize truck damage the driver dumps the entire load by the side of the road "hot load" dump caused the deadly Sandalwood fire in California that destroyed 70+ structures and resulted in two fatalities); **SCS REBUTTAL**: This would be either a working face fire or a grass fire – two of the plausible scenarios already identified. If this were to occur on the landfill property, it would be quickly identified and ex extinguished.

VNEQS' Rebuttal: A hot load can be dumped anywhere along the trash truck routes as in Sandlewood where it burned 70+ structures. A hot load was recently dumped in Philomath.

• PLAUSIBLE SCENARIO 2: Lightning strike (see testimony, Virginia Scott); **SCS REBUTTAL:** This would be likely be a grass fire, one of the plausible scenarios.

VNEQS' Rebuttal: Please see the SCS Engineering Report "Understanding and Managing Landfill Fires: A Guide to Surface and Subsurface Hazards" attached to this testimony that states: "Surface Fires - Surface fires are directly visible and can be caused by several factors, including hot loads (items in a postcombustion state that are smoldering or can be re-lit), lightning strikes, vehicle malfunctions, and chemical reactions within the newly placed

waste." A fireball rather than a grass fire was the result of the lightning strike illustrated in the Fire Risk Testimony (see below):



• PLAUSIBLE SCENARIO 3: Burning embers from a fire burning elsewhere rain down upon the landfill, igniting it. Fire experts tell area residents that this is THE MOST LIKELY scenario for a fire emergency: that a wildfire elsewhere lofts airborne embers into the area, starting fires there; SCS REBUTTAL: This would likely be a grass fire, one of the plausible scenarios. The likelihood of this is low, and the risk and consequences would be no worse than on any other grassed area in the County. Moreover, the likelihood of timely detection and response is far higher at Coffin Butte Landfill than with other rural and unobserved grassed (or otherwise vegetated) areas.

VNEQS Rebuttal: Please see the image below included from the SCS Engineering Report "Understanding and Managing Landfill Fires: A Guide to Surface and Subsurface Hazards" attached to this testimony that clearing shows a surface fire at a landfill that is clearly emitting embers. Combine this with a wind event and this is a high risk to neighboring homes and properties. Please refer back to the Fire Risk testimony which clearly demonstrates how many of the Coffin Butte and PRC landfill fires are occurring unobserved and unaddressed by Republic



Services.

Figure 1 - Surface fire at a landfill.

• PLAUSIBLE SCENARIO 4: Exploding lithium batteries (see testimony, Virginia Scott, & OPB article, "Exploding lithium batteries are causing fires in Oregon's landfills"); SCS REBUTTAL: Batteries are excluded from working face disposal and have a designated separate collection area at the landfill. Batteries are not landfilled. If they did get through to the working face, and ignited, they would be manageable as a working face fire, which is already addressed.

VNEQS Rebuttal: Please refer back to the Fire Risk testimony which clearly demonstrates how many of the Coffin Butte and PRC landfill fires are occurring unobserved and unaddressed by Republic Services. Please see the SCS Engineering Report **"Understanding and Managing Landfill Fires: A Guide to Surface and Subsurface Hazards"** which states that "lithium batteries are hypersensitive to exploding in the presence of water", like what we have in this wet environment which is another reason that a landfill in Benton County is not ideal.

• PLAUSIBLE SCENARIO 5: Electrical short ignites fire in garbage truck in the compressed natural gas fueling area (see "Corvallis Fire Instagram account"); **SCS REBUTTAL:** This has never happened and the likelihood it could is very low. If it did occur, such trucks are isolated on a hard surface, and physically separate from anything else that could ignite. And such a fire would be immediately identified and responded to by on-site staff, who would quickly extinguish the fire.

VNEQS' Rebuttal: The event **DID** happen (See Fire Risk testimony for full set of photos):





April 6, 2025 5:28 PM – This fire occurred on Walnut in Corvallis.





• PLAUSIBLE SCENARIO 6: "Subsurface Reaction" (the term of art used by the Applicant's fire consultant, Mr. James Walsh to describe spontaneous combustion deep in the landfill mass). In his 2015 expert testimony on the Bridgeton, Missouri fire (we will use the term "fire" rather than "SSR"), the Applicant's fire expert, Mr. Walsh, stated: "There is no known way to prevent the SSR from developing or to stop it." That SSR (or "fire") has now been burning in the Bridgeton landfill for 15 years. There are known risk factors, however, and one of them is having incinerator ash in the landfill; Coffin Butte has been accepting ash from the incinerator in Marion County for years. Another is accepting construction and demolition debris.

SCS REBUTTAL: THE SSR that was identified at Bridgeton Landfill is not a fire. A fire is shallow, aerobic, oxidation, and requires the presence of significant quantities of oxygen. An SSR is deep, anaerobic, lacking oxygen, and assuredly not a fire. An SSR is extremely rare. Plus, temperatures are recorded monthly at all extraction wells at Coffin Butte Landfill, allowing for detection of elevated temperatures in the waste – a way to detect a possible subsurface fire or SSR. All such recorded temperatures to date at Coffin Butte are under the limits prescribed by the MSW landfill NSPS regulation. There is and has been no evidence of an SSR (or underground waste fire) at Coffin Butte and there is no material risk of one developing. Conditions at Bridgeton are entirely different than those at Coffin Butte. Ash alone will not create an SSR.

VNEQS' Rebuttal: Please see the attached SCS Engineering Report "Understanding and Managing Landfill Fires: A Guide to Surface and Subsurface Hazards" which plainly discusses the hazards of subsurface fires. Years of Marion County ash, construction debris, lithium batteries in a wet environment that can burn without oxygen,...

Given that the engineering arguments in support of the landfill expansion are refuted by reputable sources including the attached SCS Engineering Report "Understanding and Managing Landfill Fires: A Guide to Surface and Subsurface Hazards", the Applicants engineering report as a whole is not a reliable source on which to base a decision to approve this CUP application.

POTENTIAL CODE CITATIONS – FIRE: **53.215 (1) FIRE SERIOUSLY INTERFERE WITH USES ON ADJACENT PROPERTY** There has been testimony (Erin Bradley & Joel Geier) regarding the threat fire on the landfill posed in 2024 to nearby properties

SCS REBUTTAL FOR THIS COMMENT AND ALL ALLEGED "POTENTIAL CODE VIOLATIONS" BELOW: This is a list of highly speculative, highly unlikely scenarios. My prior reports, including my June 6, 2025 submission, do not support the outcomes suggested by VNEQS. As an expert in this field, I stand by the conclusion that operations at Coffin Butte, including the proposed expansion, do not present a significant fire risk.

VNEQS' Rebuttal: Events are neither speculative nor unlikely if they have happened:

- Exhibit 20 declared that no fires have occurred in the surrounding area, yet 111 fires occurred in the nearby area.
- After the first flare fire, it was declared that flare fires do not occur, and then a second flare fire occurred.
- The June 20 report cited above stated that the truck fire on Walnut did not occur, and it did (see photos).
- The June 20 rebuttal states that fires are quickly detected and handled by staff on hand, yet most of the fires are detected and called in by citizens, and responded to by Adair Rural Fire and Rescue.
- The June 20 rebuttal state that lighting would produce a grass fire, but a lightning strike at a different MW facility resulted in a fireball.

Declaring an event impossible, does not prevent that event from happening. We may have been fortunate that so far none of these events have escaped the bounds of the landfill (with the exception of smoke), and we have shown that these events have ALL occurred in similar landfills and similar communities with tragic and dangerous results. It is not sufficient to say "it has not happened here, so it won't". Nor is "it has not happened here" sound grounds for CUP approval.

Please deny the CUP.

Thank you for your time and consideration.

Virginia Scott 37016 Soap Creek Road Corvallis, OR 97330

Understanding and Managing Landfill Fires: A Guide to Surface and Subsurface Hazards

Laila Al-Khalaf, E.I., M.S.E. and Stephen Townsend, E.I., M.S.E.

While essential for waste management, landfills can pose hazards when not properly managed. One of the more pressing challenges is the risk of landfill fires, categorized into two main types: surface and subsurface fires. Understanding their causes and appropriate management strategies is vital for maintaining safety, compliance, and can financially benefit the facility with early identification of potential situations.

Surface Fires

Surface fires are directly visible and can be caused by several factors, including hot loads (items in a post-combustion state that are smoldering or can be re-lit), lightning strikes, vehicle malfunctions, and chemical reactions within the newly placed waste. Dry and hot environmental conditions often exacerbate these fires. A surface fire is easily identifiable due to the readily visible smoke and flames, as seen in Figure 1.

In the event of a surface fire, the immediate response is critical. Personnel should call the fire department and then mobilize heavy landfill equipment to the area from a safe distance. A fire professional should lead a well-coordinated action plan. The mobilized equipment is vital in containing the fire and preventing its spread by removing flammable materials such as wood and fuel from the area and bringing in soil to smother the flames, thereby reducing the oxygen supply.

After extinguishing the fire, it is imperative to notify the appropriate regulatory agency. This notification



Figure 1 - Surface fire at a landfill.

should include details about the fire's cause, duration, damage, and the measures taken for remediation in line with the landfill's operating permits.

Subsurface Fires

Subsurface fires, or subsurface oxidation, are less apparent and can often go unnoticed until



Figure 2 - Subsurface fire due to compromised infrastructure.

visual signs like smoke or ground settlement are observed. These subsurface occurrences can arise from compromised infrastructure, over-extraction of gas from the landfill gas collection system (GCCS), the nature and composition of the waste itself, and the answer may remain unknown. A depiction of a subsurface fire due

to compromised infrastructure is in Figure 2. Other visual indicators of a subsurface fire include stressed or dead vegetation around a landfill gas well, ground settlement, or visible smoldering.

Monitoring gas data trends from wells is critical in preventing fires, as early detection can lead to effective prevention and proactive solutions. Data indicators of a potential subsurface fire include an increase in the well temperature, a methane (CH₄) to carbon dioxide (CO₂) ratio greater than one, and elevated carbon monoxide (CO) levels above approximately 100 ppm. When these gas data trends are present for a well, the well may no longer be in a methanogenic cycle and is shifting into an oxidation phase. An example of this shift is graphically depicted in Figure 3.

As these warning signs are detected, personnel should isolate the area by closing the air, force main, lateral piping, header valves, and closing wells within a 500-foot radius of the affected area. Further measures include placing two feet of soil to smother the area, extended by 10 feet in all directions. Monitor ground temperatures and CO levels continuously until the data reflects normal levels. Once data trends

6 Talking Trash

indicate the subsurface fire has subsided, the isolated vacuum, air, and forcemain piping can be gradually reopened.

Preventative Measures

Preventative measures include diligently placing daily cover material atop the newly placed waste. Daily cover is not always required for every facility, but this can be an important factor in prevention. Additionally, the segregation of known reactive waste materials can prevent unexpected reactions within the active face of the landfill. Proactively identify waste streams to reduce the probability of an incident, reducing the facility's risk for fire.

Maintaining landfill gas infrastructure and ensuring its functionality is vital to preventing potential fires. A compromised vacuum or airline in the system can be enough to trigger a reaction and start a fire. In addition, proper shut-off valve placement can aid in extinguishing a fire when it is present.

Recently, lithium-ion batteries have become a source of ignition in landfill fires as they are hypersensitive to exploding in the presence of water. These batteries are typically small, such as those in vape pens, making them especially hard for even the most trained landfill spotters to see. Therefore, educating citizens on disposal needs and drop-off locations is an important preventative measure. We recommend implementing immediate response plans for both types of fires to manage and mitigate risks effectively.

In summary, proactive measures such as segregating known reactive waste materials, monitoring gas data trends, maintaining infrastructure integrity, and educating citizens on proper waste disposal habits can significantly reduce the likelihood of fire incidents. By adhering to these practices, landfill operators and citizens can enhance safety, ensure compliance, and protect the environment and their community.

Laila Al-Khalaf, E.I., M.S.E., is a Project Professional working out of the SCS Engineers' Tampa office. Laila is responsible for overseeing, performing, and tracking Title V Compliance for SCS's clients with regards to Landfill Gas Engineering. In addition, she manages designs, construction, and tuning of Landfill Gas Control and Collection Systems

for clients all over the Southeast Region. Prior to joining SCS Engineers in 2019, she worked as a project engineer at a civil firm focused on land development, including permitting, site layout design, and wastewater, water, and stormwater design. She can be reached at (813) 270-0518 or e-mail: Lal-khalaf@scsenginers.com.

Stephen Townsend, E.I., M.S.E., is a Project Professional for SCS Engineers. He is responsible for overseeing, performing and tracking Title V Compliance for SCS's clients with regards to Landfill Gas Engineering. Stephen works closely with Southeast Region clients and provides as-needed engineers for Solid Waste and Landfill Gas Projects. Since joining SCS in 2018, he has provided some solid waste assistance but has a primary focus of landfill gas assistance for municipal and private clients across the Southeast. Stephen can be reached at (352) 246-5195 or e-mail stownsend@scsengineers.com.

Figures courtesy of SCS Engineers.

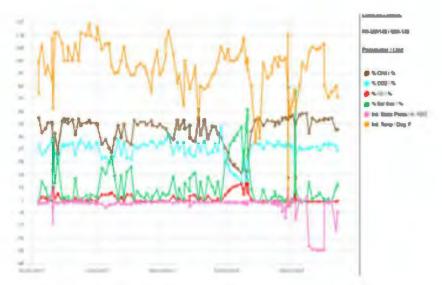


Figure 3 - Graphical depiction of oxidation phase in well data.

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