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HEARING TO EXAMINE S. 3135, THE COLD WEATHER DIESEL RELIABILITY ACT

HEARING

BEFORE THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

ONE HUNDRED NINETEENTH CONGRESS

SECOND SESSION

MARCH 11, 2026

Printed for the use of the Committee on Environment and Public Works

Available via the World Wide Web: http://www.govinfo.gov

U.S. GOVERNMENT PUBLISHING OFFICE

63–734 WASHINGTON : 2026

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

ONE HUNDRED NINETEENTH CONGRESS

SECOND SESSION

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HEARING TO EXAMINE S. 3135, THE COLD WEATHER DIESEL RELIABILITY ACT

WEDNESDAY, MARCH 11, 2026

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
Washington, DC.

WEDNESDAY, MARCH 11, 2026

U.S. Senate Committee on Environment and Public Works Washington, DC.

The committee met, pursuant to notice, at 10:03 a.m. in room 562, Dirksen Senate Office Building, Hon. Shelley Moore Capito (chairman of the committee) presiding.

Present: Senators Capito, Whitehouse, Lummis, Sullivan, Ricketts, Padilla, Alsobrooks.

OPENING STATEMENT OF HON. SHELLEY MOORE CAPITO, U.S. SENATOR FROM THE STATE OF WEST VIRGINIA

Senator CAPITO. Good morning, and thank you all for being here. I appreciate it.

Today, we will be receiving testimony on S. 3135, the Cold Weather Diesel Reliability Act, sponsored by Senators Sullivan, Lummis, Curtis and Murkowski. This legislation is meant to address a serious safety issue for drivers of diesel trucks and equipment in certain parts of our Country. I know two of our witnesses have traveled very far today, and I appreciate you all being here.

Since 2010, to comply with EPA vehicle emissions regulations for toxic gas mixture (NOx), most new diesel engines have used a technology known as selective catalytic reduction or SCR. SCR is an emissions control system that sprays diesel exhaust fluid, or DEF, into the vehicle's exhaust stream to reduce NOx emissions.

To maintain the proper function of the emissions control system, drivers must continuously refill the vehicle with DEF. To ensure compliance with emissions standards, the EPA requires manufacturers to install on-board diagnostic sensors that detect when NOx emissions are too high, signaling that the vehicle is out of DEF.

When the sensor detects an issue, it triggers the engine controls and software to severely limit an engine's performance through what is called a derate. That is about as technical as I am going to get with you. When the vehicle derates, it cannot go faster than five miles per hour.

However, vehicle derates are not limited to instances when the vehicle is out of DEF, but occurs at any time when the emissions control technology is not functioning correctly. Emissions sensor failures can cause these restrictions, as well as prolonged cold

weather, which can freeze DEF and prevent it from entering the exhaust system.

No matter the reason, if the sensor detects an emissions system malfunction, a driver has just 4 hours to fix the problem before the five mile per hour restriction kicks in. This system response in rural and cold weather regions can and has resulted in farmers' tractors shutting down in the middle of a field during harvest season or stranded truckers in sub-zero temperatures on isolated roads in northern parts of the Country.

In 2021, sensor failures led to thousands of trucks across the Country being derated and thus out-of-service without an immediate solution. To address this issue in emergency vehicles, such as fire trucks and ambulances, in 2012, the EPA exempted emergency vehicles from this requirement when responding to an emergency.

The Cold Weather Diesel Reliability Act takes a similar approach by authorizing manufacturers to override the system in targeted cold weather environments. By exempting diesel engine derates in Alaska and other parts of rural America, where so many folks rely on diesel trucks and equipment for their livelihood and transportation needs, the bill seeks to address this critical safety issue.

I want to thank my colleagues for championing safety in transportation and working to address the unique needs of Alaska, Wyoming and other cold weather States.

I would also like to thank the Trump administration for recognizing the importance of protecting America's farmers and truckers. Last year, EPA Administrator Zeldin issued guidance to allow more flexibility and longer warning times before derates occur, and is gathering information to help fix this safety problem.

I look forward to this topic, and I will now recognize Senator Whitehouse for his opening statement.

OPENING STATEMENT OF HON. SHELDON WHITEHOUSE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Senator WHITEHOUSE. Thank you so much, Madam Chair.

I am happy to discuss the diesel engine issue that Senator Sullivan and Senator Lummis are concerned about. We also have to remember the last 14 months of Trump-Zeldin attacks on the bedrock policies that protect clean air and a safe and livable climate. They merit even greater attention as they harm every single American.

Before the 1970 Clean Air Act, air pollution in the United States was at crisis levels. Smog blanketed large parts of the Country. In the 1950's, scientists discovered that vehicle emissions were a primary cause of smog. Vehicle tailpipes coughed out a long list of dangerous pollutants, including nitrogen oxides, usually referred to as NOx.

NOx causes lung disease, reproductive issues, birth defects, kidney problems, nerve damage, autoimmune disease, and cancer. NOx is the primary cause of smog formation.

The smog of the post-war era seems like ancient history to us now, because the passage of the Clean Air Act drove down the primary smog-causing pollutants by nearly 80 percent. Title II of the Act requires EPA to set standards which drive down vehicle emissions. In response, manufacturers invented and implemented

groundbreaking emissions control systems, including the system at issue today, which dramatically reduces NOx emissions from diesel vehicles.

Diesel vehicles are a major cause of NOx pollution. In fact, diesel vehicles alone emit 27 percent of all NOx pollution nationwide. Diesel vehicles are equipped with an emissions control system powered by diesel emissions fluid, DEF, which breaks down NOx into nitrogen and water and reduces dangerous emissions by 90 percent.

Senator Sullivan will shortly introduce his bill, the Cold Weather Diesel Reliability Act. I appreciate his interest in advocating for his constituents, many of whom live in remote areas and experience extreme temperatures.

This bill may target a problem that the EPA has already largely addressed and manufacturers have already adapted to. We will hear more. The potential for diesel emissions control systems to fail below 12 degrees Fahrenheit from a cold start is a known issue that has already been successfully addressed by EPA in 2009 and again last year.

In both cases, EPA directed engine manufacturers to allow the vehicle to drive on for some distance. Now, with a software update distance is up to 8,400 miles before the engine derates in response to a sensor telling it the NOx control system is malfunctioning.

While the vehicle is driving, my understanding is that heat from the engine keeps the DEF liquid, that is unless the DEF tank is empty or malfunctioning, or in the case of catastrophic engine failure unrelated to the DEF. There are examples we will hear about of circumstances where truck engines derate. EPA is currently working on updates to the existing NOx standards for heavy duty vehicles. Just this month, the agency issued letters to the top 14 diesel manufacturers, demanding relevant information on DEF failures.

While EPA continues to address this issue, under President Trump and Administrator Zeldin, it has completely abdicated any and all responsibility to protect everyone's air and climate. In just the last 14 months EPA has rescinded its greenhouse gas tailpipe emission standards, a recission that by EPA's own estimate will cost consumers at least $580 billion and up to $1.4 trillion at the gas pump.

That is money directly out of Americans' pockets and into the coffers of Trump's Big Oil donors. As the price of gasoline skyrockets due to Trump's war of choice in Iran, that transfer to wealth from Americans to Big Oil will only grow.

Two, EPA has rescinded the greenhouse gas Endangerment Finding, defying the law, scientific evidence, and the lived experiences of millions of Americans. Climate change is already driving up the costs of property insurance, groceries, and electricity across the Country, and EPA's retreat from its regulatory duties will turbocharge existing climateflation.

Three, EPA has handed out dozens of regulatory exemptions to coal plants, letting them spew toxic mercury at will and raising the costs to consumers.

EPA has rolled back the Mercury and Air Toxics Rule, dramatically lowering standards for emissions of mercury and other highly dangerous and often carcinogenic pollutants from power plants.

Five, EPA has decided not to count the health costs associated with certain air pollutants, and to only count costs to industry when they undertake their rulemaking cost-benefit analysis. The message is clear: costs to industry donors matter; costs to the public do not.

EPA is not enforcing regulations that are still in place. This is No. 6. Last year, EPA pursued 75 percent fewer legal actions against alleged polluters than it did in the first year of Biden's first term, and 81 percent fewer than the first year of Trump's own first term in 2017.

Twenty twenty-five also saw a 36 percent decline in toxic substances inspections, and a 29 percent drop in average penalties from 2024.

There is a common theme here: polluters win. All these actions are being taken so that Trump's fossil fuel donors will be able to sell more oil, gas, and coal. All of these actions cost Americans, all Americans, lots of money. Property insurance premiums are skyrocketing across Country, particularly along the Southeast and Gulf coasts, across the mountain west, and in the hail belt of the Great Plains.

In these places, many homeowners have seen their premiums double or triple in just the last several years. Many others have been dropped by their insurance company altogether as uninsurable.

Unaffordable and unavailable property insurance portends a deep recession, similar to 2008, as property values crash. The Economist magazine predicted a $25 trillion hit to property values around the world. Fed Chair Powell noted last year before the Senate Banking Committee that climate risks will render entire regions of the United States uninsurable and therefore unmortgageable in 10 to 15 years.

Food prices are being driven higher by extreme weather. Coffee, sugar, orange juice, chocolate, olive oil, are just a few of the goods that have seen their prices spike in recent years due to unconstrained climate change.

As storms along the Gulf Coast and wildfires out west become more frequent and severe, electricity prices have risen in those parts of the Country. Natural Resource Defense Council (NRDC) estimates that pollution from fossil fuel combustion results in more than $800 billion in added healthcare costs a year in the United States.

Under Trump and Zeldin, all of these things will get worse as they allow more and more and more and more pollution. This committee would do well to examine how a corrupt EPA is harming all Americans, in addition to the matter at hand.

Thank you very much, Madam Chair.

Senator CAPITO. Thank you, Senator Whitehouse.

I will now turn it over to Senator Sullivan for his remarks on the bill we are discussing this morning, and to introduce our first witness, Ryan Anderson.

OPENING STATEMENT OF HON. DAN SULLIVAN, U.S. SENATOR FROM THE STATE OF ALASKA

Senator SULLIVAN. Thank you, Madam Chair, and my good friend, Ranking Member Whitehouse. After that opening statement, I get the sense you are going to support my bill but maybe not some of the other things. We will get there.

[Laughter.]

Senator WHITEHOUSE. I am always happy to work with you, Senator Sullivan.

Senator SULLIVAN. I know. We have a very good working relationship.

Madam Chair, I really appreciate you holding this hearing on my legislation that would fix an issue that I am hearing from dozens of Alaskans I represent. It is more than just Alaskans. It is constituents, Americans, in many other States that have cold weather.

As I mentioned, this is a problem my constituents brought directly to my office, and it is really about another EPA mandate that does not reflect the real world that impacts so many people outside of D.C., and in Alaska can literally be a matter of life and death.

You have already explained it, Madam Chair. I will expound a little bit more on the EPA emission rules that required nearly all new diesel engines during the Obama administration to install emissions control systems that used diesel exhaust fluid, or DEF. To enforce compliance, EPA also required manufacturers to program automatic "derate" safeguards that limit engine power or even shut down the vehicle if the system detects a problem, such as low DEF levels or a malfunction in the emissions equipment.

As often happens, the people hit with these one-size-fits-all regulations from D.C. are not the D.C. lawyers who wrote them, it is the truck drivers, mechanics, and equipment operators, farmers out on remote highways, doing the hard work that keeps our communities supplied and our economy moving.

Why do I say that? DEF freezes at just 12 degrees Fahrenheit. Modern trucks have heaters to thaw them once the engine starts, and in normal winter conditions, those heaters generally do their job.

In places like Alaska, temperatures do not just dip below freezing for a few hours. They can stay well below negative 20 degrees at a time for weeks. As our witness, Ryan Anderson, is going to testify, we have had a very cold winter in Alaska, 20, 30, 40, 50 below zero for weeks on end in many communities in my State.

When that happens, the emissions system can stay too cold to reach ready status. The extreme cold can affect the sensors, pumps, and heaters that the emission systems depend on. The sensors think that something is wrong, even when the engine itself is running just fine.

The truck's computer reads that as a fault and starts reducing power, slowing down to as slow as five miles per hour. Then in some instances, shutting off the engine. When that happens in a city, it is an inconvenience. When it happens on a remote highway in Alaska, where there is no cell service and the nearest help might be hundreds of miles away, it becomes a serious safety risk. Literally a matter of life and death.

Don't just take my word for it. One of the calls my office received that led directly to this legislation came from a trucking company operating on the Dalton Highway. That is what we call the Haul Road, the only road that goes up to Alaska's North Slope. Think of the show, Ice Road Truckers. That is the road. Those are the truck drivers. It is the economic lifeline of Alaska.

One of their drivers was hauling north toward Prudhoe Bay, the biggest oil field in North America, during a blizzard. Temperatures were negative 45 degrees below zero. That is without wind chill. It was gusting at over 60 miles an hour, so the wind chill was probably in the 70 to 80 degree below zero temperature.

The truck was practically brand new and properly winterized. Near Atigun Pass, the truck suddenly lost power when the DEF crystallized, and the sensors registered a fault. The driver went from highway speed to crawling along at about five miles an hour in the middle of a blizzard while hauling a heavy load through mountain terrain.

There is no cell service on most of the Dalton Highway. He had to call dispatch on a satellite phone while idling in the brutal wind chills just to keep the truck from freezing solid. Not moving.

Hours later, many hours later, another driver finally reached him and helped him. He survived, but the load had to be dropped, and the company paid about $15,000 just to tow the truck back to Fairbanks.

Madam Chair, stories like these are not unusual in Alaska. I hear them all the time from truckers and equipment operators and small businesses that rely on diesel equipment to do their jobs. I would like to submit for the record these several additional testimonials from my constituents about exactly this problem.

Senator CAPITO. Without objection, so ordered.

Senator SULLIVAN. These are the men and women, by the way, who keep our Country moving. They haul food, fuel, and the supplies that keep communities running. They produce American energy on the North Slope of Alaska, still the largest oil and gas fields in the Country, which we need right now.

What they are telling us is simple: the rules coming out of Washington do not reflect the reality they face on the ground. In Alaska, these failures can leave someone stranded in 50-below zero weather, hours away from help. This is a compliance trap, and it is dangerous.

My bill brings some common sense into the system. It directs the EPA to update its regulations to account for extreme cold and allows manufacturers to temporarily suspend automatic derate or shutdown functions during those extreme cold weather conditions. Common sense.

I am committed to working with the manufacturers, regulators, and the trucking industry, and of course, my colleagues here, to get this right. We have to start by listening to the people who are actually living with these everyday problems and not ignoring them.

That is what my bill does. It listens to the working men and women of our Country who keep our Country and economy running and makes sure that Federal policy reflects the reality they actually face on the road.

With that, speaking of roads in Alaska, Madam Chair, I am very honored to introduce the Alaska Department of Transportation Commissioner, Ryan Anders. I have known Ryan, he has been a friend of mine, I have known him for many years.

Commissioner Anderson has spent the last 25 years working for the State of Alaska. He moved to Alaska in 1993 and attended the University of Alaska Fairbanks, where he earned a degree in geological engineering. He also earned his professional civil engineering license in 2003.

Before becoming Commissioner in 2022, he served for 6 years as the Alaska Department of Transportation Northern Region Director, an area, by the way, larger than the State of Texas, that stretches from the Gulf of Alaska to the Arctic Ocean and from the Bering Sea to the Canadian border.

In that role, he oversaw construction, maintenance, and emergency response across some of the coldest and most remote terrain anywhere in the United States. Commissioner Anderson brings decades of on-the-ground experience managing infrastructure, equipment, and people in extreme Arctic conditions, which makes his perspective particularly valuable to today's discussion.

Thank you again, Commissioner, for traveling about 4,000 miles to come to this hearing. It is always an honor to work with you, and we want to work with you to keep Alaska's transportation system operating under some of the toughest conditions anywhere in the world, safe and effective.

With that, I will ask the Commissioner to make his statement.

Senator CAPITO. That is good. I will just welcome Mr. Anderson, and thank you for being here. You are now recognized for 5 minutes. Thank you, Senator Sullivan.

STATEMENT OF RYAN ANDERSON, COMMISSIONER, ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

Mr. ANDERSON. Thank you, Senator.

Chair, Ranking Member, and members of the committee, thank you for the opportunity to testify today. As the Senator said, my name is Ryan Anderson, and I serve as the Commissioner of the Alaska Department of Transportation and Public Facilities.

Our department maintains Alaska's statewide transportation system, highways, airports, we have marine facilities. We connect facilities across Alaska, one of the largest and remote transportation systems in the Nation.

I have worked at Alaska DOT for more than 25 years, and I am here to share the challenges facing the operators and transportation providers who keep people, freight, and essential supplies moving across Alaska.

Transportation systems in Alaska operate through some of the longest and most severe winters in the United States. In most of our State, winter conditions last 6 months or more. If you go into the Arctic, these conditions last months of the year. In interior Alaska, temperatures often fall between minus 30 degrees below zero Fahrenheit to minus 50 degrees below zero Fahrenheit. This past winter, we had temperatures minus 60 degrees below zero Fahrenheit.

During these times, crews work through darkness, they work through powerful storms, extreme cold, and they are often working independently where help can be many hours away by road or by air. Aviation is a lifeline across Alaska. More than 250 rural communities do not have road access. From food and mail to medical supplies, even medevacs, they arrive by aircraft.

When storm removal equipment fails, runways can close until repairs are made, delaying flights carrying freight, essential supplies, as well as delaying the emergency medical evacuations.

Alaska's environment already puts people at risk. Now, imagine if critical equipment that we rely on to reduce these risks is not reliable. In Alaska, reliable equipment is not just an operational issue. It is a life safety issue for us.

Unfortunately, the reliability of the modern diesel emission system is making this already challenging operating environment even more difficult. Across Alaska, operators are reporting failures tied to diesel exhaust fluid and related emissions control systems during sustained cold weather operations. These systems can freeze, malfunction, or trigger automatic engine derates, as was discussed.

In most places, that might mean a quick trip to the repair shop. In Alaska, when equipment loses power in extremely cold and remote areas, the consequences are far more dangerous. These situations are not hypothetical, they are happening today on Alaska's highways where professional drivers are moving the fuel, food, and industrial supplies that communities across our State depend on.

For our department alone, emissions control systems have become the single largest source of maintenance failures affecting our diesel fleet. Our fleet director estimates that 70 to 80 percent of diesel engine maintenance issues over the past 2 years are related to emissions control systems.

On any given day, 10 to 30 percent of our heavy equipment fleet may be unavailable for service because of these faults. In one recent case, a maintenance unit had to be hauled more than 500 miles for repairs after an emission system failure. That single failure resulted in more than $45,000 in added operating and equipment cost, and the equipment was out of service for a full year.

In one rural Alaska community, a runway was temporarily closed after snow removal equipment experienced an emissions systems malfunction. There was no mechanic in the community, so parts and a technician had to be flown to an adjacent community and then transported by snow machine to get the runway back open and the equipment operational.

Now, DOT is not alone. Commercial trucking companies, school transportation providers, fire departments, and the Alaska Railroad have all reported similar failures affecting operations. Transportation providers in interior Alaska have reported school buses experiencing DEF-related failures during extreme cold, forcing crews to respond immediately to move students off disabled buses and get them safely to school.

Fire departments in some communities have also reported emergency vehicles sidelined by emissions systems failures . Repairing these failures in Alaska is far more difficult than in most places. In many rural communities, mechanics and diagnostic tools simply are not available nearby. When equipment fails, technicians and

parts may have to travel hundreds of miles by aircraft or highway before repairs can even begin. In aviation-dependent communities, it can take days before a mechanic even arrives.

Alaska operators are adapting. DOT is rebuilding older equipment to ensure reliable equipment operations. Our largest school bus operator is converting its fleet to gasoline engines. Fire departments are rebuilding older trucks to ensure emergency vehicles remain dependable in extreme cold.

In Alaska, emissions system reliability problems are increasing life safety risk for operators, raising maintenance costs and reducing our ability to respond quickly when winter storms disrupt transportation routes. These impacts extend beyond our communities.

Alaskans care deeply about clean air and protecting our environment. Policies designed for moderate climates must also work in the extreme conditions where our transportation systems operate.

The Cold Weather Diesel Reliability Act provides a practical and targeted solution by recognizing the challenges of operating equipment in the sustained extreme cold.

Thank you for the opportunity to testify.

[The prepared statement of Mr. Anderson follows:]

THE STATE of ALASKA
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Written Testimony of Ryan Anderson

Commissioner
Alaska Department of Transportation and Public Facilities

Before the
U.S. Senate Committee on Environment and Public Works

Hearing on
S. 3135 – Cold Weather Diesel Reliability Act

March 11, 2026

Chairman Capito, Ranking Member Whitehouse, and Members of the Committee, thank you for the opportunity to testify regarding S. 3135, the *Cold Weather Diesel Reliability Act*. My name is Ryan Anderson, and I serve as Commissioner of the Alaska Department of Transportation and Public Facilities (DOT&PF).

Transportation workers, equipment operators, and the many people who rely on Alaska's highways and airports operate in prolonged periods of cold and darkness, and across vast, remote areas where assistance may be hundreds of miles away. In these conditions, equipment reliability is directly tied to life safety and the continued movement of freight, fuel, and essential supplies. The Cold Weather Diesel Reliability Act addresses reliability challenges that modern diesel emissions systems can encounter when operating in sustained below-freezing temperatures.

I reside in Fairbanks, Alaska, and have worked for DOT&PF for more than 25 years, including two decades working on transportation projects across Northern Alaska and above the Arctic Circle. Throughout my career I have worked closely with maintenance and operations crews, contractors building transportation infrastructure, and the transportation operators who rely on these systems across some of Alaska's most challenging environments. I am a registered civil engineer in the State of Alaska and have been practicing since 2003.

Alaska law directs the Alaska Department of Transportation and Public Facilities to maintain a transportation system that supports national defense, connects communities, and enables the commerce and resource development that sustain the state's economy. In carrying out this responsibility, Alaska DOT&PF operates and maintains one of the most geographically extensive transportation systems in the United States.

The department maintains more than 5,600 centerline miles of state highways and over 840 bridges, much of which forms part of the National Highway System, including corridors designated as part of the Strategic Highway Network (STRAHNET) that support national defense mobility in the Arctic region. These highways serve as the primary surface transportation connection between major regions of the state, and in many cases function as the only route between communities with no alternate corridors available when disruptions occur.

In addition to the highway system, DOT&PF operates a statewide aviation network of 237 state-owned airports, including 235 rural airports that provide year-round access for many communities not connected to the road system. The department

also operates two international airports, the Alaska Marine Highway System, and the Statewide Equipment Fleet. Alaska's broader transportation system also includes the Alaska Railroad Corporation, a state-owned railroad that transports freight, fuel, and passengers across more than 500 miles of rail corridor along the railbelt. As Commissioner of DOT&PF, I also serve as a statutory member of the Alaska Railroad Corporation Board of Directors.

In Alaska, state agencies, local governments, transportation operators, and private industry work closely together to keep transportation systems functioning across remote and challenging environments. As Commissioner, part of my responsibility is to ensure that the policies affecting transportation infrastructure support not only DOT&PF operations, but also the many public and private partners who depend on reliable transportation systems across Alaska.

The issue before the Committee today is how modern diesel emissions technologies perform in cold temperature operating environments. Alaska supports the national goal of reducing transportation emissions, and over the past two decades diesel engine technologies have made significant progress in improving air quality.

At the same time, transportation operators, maintenance crews, and industries that rely on Alaska's transportation corridors have faced ongoing reliability challenges associated with certain emissions-control components when equipment operates in cold temperatures. Because transportation systems across Alaska routinely operate in prolonged winter conditions with temperatures far below freezing, these reliability challenges occur in greater frequency, and with greater impact, across our vast transportation network.

Certain emissions-control systems rely on components and fluids that are sensitive to low temperatures. In sustained below-freezing temperatures, these systems can malfunction, degrade equipment performance, or trigger protective engine derates—automatic reductions in engine power designed to prevent damage to the engine or emissions system.

The Cold Weather Diesel Reliability Act seeks to address this operating-environment challenge by ensuring that modern diesel equipment can function reliably in cold weather conditions while continuing to support the broader national goals of reducing transportation emissions and improving air quality.

The following sections of my testimony describe the operating environment in Alaska, the life safety implications associated with equipment reliability in extreme cold and remote conditions, and the operational pressures transportation providers face while maintaining critical transportation corridors and supply chains during severe winter conditions.

Operating Environment in Alaska

Transportation systems across Alaska operate through some of the longest and most severe winter conditions found anywhere in the United States and among the most challenging environments in the world for maintaining year-round transportation infrastructure. In many parts of the state, winter conditions persist for six months or more each year, and in northern regions above the Arctic Circle these conditions can extend up to eight months.

During these months, transportation crews often operate through extended periods of darkness, when daylight may last only a few hours each day, particularly in Arctic communities. Highway and airport crews must operate heavy equipment for long periods in darkness or low-light conditions while responding to storms, maintaining transportation routes, and supporting emergency access across remote regions.

Despite these conditions, highways, airports, and other transportation facilities must remain operational in the face of frequent winter hazards including heavy snowfall, drifting snow, icing conditions, winter rain events, avalanches, and occasional winter flooding. Maintaining safe and reliable transportation under these conditions requires continuous operations by highway maintenance crews, airport operators, and transportation providers who must both maintain infrastructure and continue moving freight, fuel, and essential supplies across Alaska's transportation system during severe winter conditions.

Duration of Winter and Extreme Cold

Winter conditions across Alaska are defined not only by storms but by prolonged periods of sustained cold. In Interior Alaska, locations such as Fairbanks experience freezing temperatures for much of the year, including more than 150 days annually where temperatures remain below freezing for the entire day. Winter temperatures commonly fall between -30°F and -50°F across Interior Alaska, while Arctic regions frequently experience even lower temperatures during severe cold events. The coldest temperature ever recorded in Alaska—and the coldest temperature ever recorded in the United States was -80°F, measured near Prospect Creek north of Fairbanks on January 23, 1971.

During the winter of 2025–2026, temperatures in Interior Alaska fell below -50°F in multiple locations, including a recorded low of -62°F near Chicken, Alaska, while the Fairbanks region experienced one of the coldest 30-day periods in roughly fifty years. These prolonged cold periods frequently coincide with extended winter darkness, requiring transportation crews to maintain highways and airports in extreme cold while operating heavy equipment with limited visibility.

Even communities well south of the Arctic Circle experience long periods of freezing temperatures. While Fairbanks experiences more than 150 days each year where temperatures remain below freezing for the entire day, coastal communities such as Kipnuk, located near 59° north latitude along the Yukon–Kuskokwim Delta, experience roughly 130 days annually where temperatures typically remain below 32°F for the entire day. The region's treeless tundra, persistent winds, and frequent blowing snow create severe winter conditions for transportation and emergency response equipment.

These challenges were evident following Typhoon Halong this past winter, when western Alaska communities including Kipnuk required emergency response and recovery operations that continued into below-freezing temperatures. Experiences like these demonstrate that sustained cold-weather operating conditions extend across much of Alaska, including regions near the 59-degree latitude threshold referenced in the legislation.

Winter Hazards Affecting Highway Corridors

Heavy snowfall and drifting snow regularly create severe travel conditions across Alaska's highway system, particularly along routes that cross open terrain and mountain passes. During the winter of 2025–2026, both the Richardson Highway and the Dalton Highway, National Highway System routes that support access to the Trans-Alaska Pipeline System and North Slope oil fields, were closed multiple times due to heavy snowfall and severe drifting caused by high winds. In the past month alone, both highways were closed for several days as crews worked to clear deep snow and restore travel. These closures disrupt the movement of people, freight, fuel, and industrial supplies across one of Alaska's most important transportation routes connecting the Pacific Ocean to the Arctic Ocean.

Avalanche hazards present another major winter challenge across several Alaska highway routes. Mountain passes receive heavy snowfall and unstable snowpack conditions that can trigger avalanches capable of blocking travel.

Along the Dalton Highway, Atigun Pass serves as the primary mountain crossing for freight and industrial traffic traveling between Interior Alaska and the North Slope oil fields. Avalanche activity in this area regularly causes closures of the Dalton Highway. Just last week, avalanche conditions forced the closure of Atigun Pass for approximately 48 hours while crews worked to assess conditions and restore safe travel.

Avalanche conditions also affect the Richardson Highway at Thompson Pass, one of the snowiest highway corridors in North America. Thompson Pass regularly receives more than 700 inches of snowfall annually, creating frequent avalanche conditions that can close the Richardson Highway during winter storms. This corridor is part of the National Highway System and supports transportation associated with the Trans-Alaska Pipeline corridor while providing the only surface transportation connection to the City of Valdez and the Valdez Marine Terminal.

Avalanche hazards also impact major highways such as the Seward Highway, an Interstate route connecting Anchorage and the Kenai Peninsula. This route passes through steep terrain along Turnagain Arm where heavy snowfall and unstable snow conditions regularly require avalanche mitigation and temporary closures to protect the traveling public. These response operations often occur during severe winter storms and extended periods of darkness, when maintenance crews must operate heavy equipment in limited visibility while working to reopen the highway.

Extreme Icing Events

In addition to heavy snowfall and avalanche hazards, Alaska's transportation corridors are also vulnerable to winter rain, icing, and flooding events. During certain winter storms, temperatures may briefly rise near or slightly above freezing, causing precipitation to fall as rain rather than snow. Because pavement surfaces often remain supercooled after extended cold periods, this rain can freeze immediately upon contact with roadways, bridges, and other transportation infrastructure, creating widespread ice conditions. As temperatures drop again following the storm, often rapidly, transportation crews must respond to these hazardous conditions while operating equipment in extreme cold.

These icing events can significantly disrupt daily transportation activity across Alaska communities. Widespread ice conditions often force school closures, delay freight movement, interrupt deliveries of fuel and essential supplies to remote communities, and limit the ability of transportation providers to safely operate vehicles and equipment. A notable example

occurred in December 2021 when Fairbanks experienced an unusual winter rain event that was followed by rapidly falling temperatures, creating extensive icing across roadways and infrastructure throughout the region, disrupting all travel for days.

A notable example of Alaska winter challenges occurred in 2015 along the Dalton Highway near the Sagavanirktok River in northern Alaska, where a combination of cold temperatures and unusual groundwater flows led to the formation of extensive aufeis that created severe icing conditions and repeatedly closed portions of the highway for several months. Aufeis forms when groundwater or river flow emerges onto the surface during winter and freezes layer by layer, creating thick ice formations that can extend across roadways and surrounding terrain for hundreds, or in extreme cases, thousands of feet. Because the water source continues to flow beneath the ice, these formations can persist and expand throughout the winter season. During the 2015 event, large ice accumulations repeatedly covered sections of the Dalton Highway, requiring ongoing response from maintenance crews using heavy equipment to remove ice, construct ice roads, and restore travel along this singular corridor serving the North Slope oil fields.

Aviation Lifelines in Remote Communities

While these winter hazards affect Alaska's highway system, similar conditions also impact the state's aviation network. DOT&PF operates a large statewide aviation system serving hundreds of rural communities that depend on air transportation for year-round access. For many residents of rural Alaska, nearly everything that arrives in their community, from food and mail to everyday items ordered online, arrives by small aircraft operating from these rural airfields.

Most rural Alaska airports operate with minimal infrastructure. Many are gravel runways located in remote environments with only a lighted runway, a small apron area, and a single State of Alaska snow removal equipment building used to shelter the equipment necessary to maintain the airfield. Unlike larger airport systems in other parts of the country, these facilities typically do not have permanent on-site staff or extensive maintenance infrastructure.

Day-to-day airport maintenance is usually performed by a single contractor, often a local community member, who is responsible for ensuring the runway remains open and safe for aircraft operations at all hours. During winter storms and extreme cold, these operators must perform snow removal and airfield maintenance using equipment such as graders, loaders, dozers, and snowblowers to keep runways clear for aircraft operations.

Maintaining this equipment in remote locations presents additional challenges. When equipment parts or mechanical service are required, those parts and technicians often must be flown in from regional hubs such as Anchorage or Fairbanks. Because many of these communities have no road access, distances for maintenance support can exceed 500 miles, and response times are dependent on weather conditions, aircraft availability, and runway conditions.

Under these circumstances, reliable equipment performance is essential to maintaining continuous aviation access. When snow removal or runway maintenance equipment becomes disabled during winter conditions, it can delay freight deliveries, disrupt passenger travel, and temporarily limit access for emergency medical evacuation flights. In communities without road connections, keeping these small rural airports operational is critical to maintaining access to essential goods, services, and medical care throughout Alaska's long winter season.

Life Safety Implications of Equipment Reliability in Extreme Cold

In the operating environment described above, transportation equipment failures are not simply operational inconveniences. Alaska's transportation systems operate across long distances, remote terrain, and extreme winter conditions where temperatures may fall well below -40°F, and wind chills can exceed -70°F . When equipment experiences reliability failures in these environments, operators and maintenance crews may be exposed to severe conditions while waiting for assistance.

Safety of Highway Maintenance Crews

The men and women responsible for maintaining Alaska's highways operate snowplows, graders, loaders, snowblowers, and other heavy equipment during winter storms, severe cold, and extended periods of darkness. Remote maintenance stations along corridors such as the Parks Highway and Dalton Highway may be separated by more than sixty miles, and operators often work alone while responding to storms or equipment needs across large sections of highway.

When equipment experiences emissions-related shutdowns or reduced-power conditions, operators have been stranded in remote areas during periods of darkness, extreme cold, and high winds. District operators report numerous instances where these failures have required rescue operations by other crews.

These risks can be even greater in extremely remote environments such as winter ice roads. Alaska works with local communities to construct and maintain seasonal ice roads that follow frozen rivers and tundra corridors, providing winter transportation access for freight, fuel, and essential supplies to communities that are not connected to the road system. Crews operating on these routes work in highly isolated areas where conditions can change rapidly due to weather, river flow, or shifting ice. In these environments, dependable equipment is critical to maintaining safe operations and protecting the safety of the crews working in these remote conditions.

Safety of Commercial Transportation Operators

Commercial transportation operators traveling Alaska's highways face many of the same life-safety risks. Freight carriers regularly move fuel, industrial supplies, and essential goods along extremely remote corridors such as the Dalton Highway, a roughly 500-mile route connecting Fairbanks to Prudhoe Bay on Alaska's North Slope. This highway crosses vast stretches of isolated terrain where there are no local emergency responders, and assistance must travel from either Fairbanks or Prudhoe Bay, often hundreds of miles away. When emissions systems trigger engine derates or shutdowns during winter operations, commercial drivers can become stranded in remote locations where temperatures frequently fall below -40°F and winds create dangerous exposure conditions. Operators have reported incidents where trucks were disabled hundreds of miles from mechanical support along remote highway corridors, leaving drivers stranded for extended periods in extreme cold while assistance traveled long distances to reach them.

These failures can also leave fully loaded commercial trucks disabled in unsafe locations along the roadway, such as on curves, grades, or narrow sections of highway, where blowing snow, extended periods of winter darkness, and limited visibility create additional hazards for other drivers traveling the corridor. In many cases, DOT&PF maintenance crews responding to highway conditions become the first personnel to reach stranded drivers. These situations are not hypothetical - they are occurring today on Alaska's highways while professional drivers are transporting the fuel, food, and industrial supplies that communities and energy infrastructure across the state depend on.

Safety of the Traveling Public

The traveling public also faces risks when equipment failures occur during severe winter conditions. School buses, passenger vehicles, and other essential transportation services operate daily on the same highways that experience extreme cold, blowing snow, and extended darkness. Transportation providers in Interior Alaska have reported instances where school buses experienced DEF-related failures during extreme cold events, forcing crews to respond immediately to move students off disabled buses and transport them safely to school. When vehicles become disabled during severe winter weather, emergency responders often face long time periods in reaching the scene across hazardous roads and long distances.

Emergency Response and First Responder Access

Emergency responders face similar risks when critical equipment is affected by emissions-system failures in extreme cold. Fire departments, ambulances, and other emergency response agencies across Interior Alaska operate in winter temperatures that routinely fall between -20°F and -40°F. Emergency vehicles depend on reliable diesel engines to respond immediately to fires, medical emergencies, and rescue calls. However, responders report that DEF systems can freeze or malfunction during sustained extreme cold, forcing emergency vehicles into reduced-power or "limp mode" conditions that limit their ability to respond. In many communities, emergency services operate with only a small number of response vehicles, and the loss of even one apparatus can significantly affect the level of protection available to the public. When mechanical failures reduce the availability or performance of emergency vehicles during winter conditions, the ability of responders to protect life and property can be directly affected.

Safety of Aviation Operations and Emergency Access

Life safety considerations are equally significant within Alaska's aviation system. Pilots and aviation operators rely on properly maintained runways, and snow removal equipment must function reliably during storms and severe cold to maintain

safe airfield conditions.

In one recent instance in rural Alaska, a runway was temporarily closed when the community's snow removal equipment became inoperable during winter conditions. Because no qualified mechanic was located in the community, repair parts and a technician first had to be flown to a nearby airport with scheduled air service. The mechanic and parts were then transported to the affected community by snowmachine in order to complete the repair and restore runway operations.

In another non-road-connected community in western Alaska, the airport's only loader became inoperable due to DEF-related mechanical issues while heavy snowfall was accumulating across the airfield. With no other loader available in the community, local operators reported that the runway could soon become unusable until the equipment could be repaired and returned to service. Because aviation provides the primary year-round access to these communities, parts and maintenance personnel must often be diverted from other locations and priorities in order to restore runway operations as quickly as possible. These situations illustrate how equipment reliability directly affects the ability of rural aviation facilities to remain operational during winter conditions, particularly in communities where aviation provides the only year-round access for passengers, freight, and emergency services.

Operational Pressures

The operational challenges associated with emissions-control systems in extreme cold environments are not theoretical concerns. Transportation providers across Alaska are encountering these reliability failures today while operating the equipment required to keep highways open, maintain rural airports, and support the movement of freight, fuel, and essential supplies during winter conditions.

Maintaining Alaska's transportation system requires the ability to rapidly scale response operations during severe winter events. Highway maintenance crews must regularly mobilize snowplows, loaders, graders, and snowblowers to respond to major snowstorms, avalanche activity, extreme wind events, and other disruptions affecting transportation corridors. Restoring safe travel often requires sustained operations across multiple maintenance districts and long stretches of highway within very short time-frames. When equipment reliability issues reduce the availability of operational equipment during these events, the department's ability to scale response operations quickly can be constrained, increasing the time required to reopen critical transportation routes.

Fleet Reliability Challenges in Winter Conditions

Within DOT&PF's Statewide Equipment Fleet, emissions-related failures associated with DEF and related after treatment systems have become one of the most significant operational challenges facing our maintenance operations. Our Director of the Statewide Equipment Fleet has identified DEF-related issues as the single largest source of maintenance problems affecting modern diesel engines in the department's fleet. Internal maintenance data and field experience indicate that between 70 and 80 percent of diesel engine maintenance issues encountered in the past two years are related to emissions-control systems and their associated components. On any given day, approximately 10 percent of the department's heavy equipment fleet may be unavailable for service due to emissions-system related faults or repairs.

In response to these reliability challenges, DOT&PF has taken steps to rebuild and retain certain older heavy equipment at substantial cost in order to ensure that maintenance crews continue to have access to reliable machines capable of operating during extreme conditions. We have also been informed that transportation operators and other industries across Alaska are taking similar actions, investing in the refurbishment or continued operation of older equipment in order to maintain dependable performance during winter operations.

Commercial trucking companies operating across Alaska's highway system have reported experiencing similar emissions-system reliability issues during extreme cold operations, particularly along remote freight corridors. The Alaska Railroad has also informed the department of instances where DEF-related equipment failures have affected railroad operations during sustained cold-weather operations.

We have also heard directly from a range of other operators across Alaska whose work depends on reliable diesel-powered equipment during winter conditions. Rural transport operators responsible for delivering supplies to remote communities via ice roads and snow trails have reported similar equipment reliability challenges, as have school transportation providers operating buses during extreme cold. Fire departments in Interior Alaska have also raised concerns about emissions-system malfunctions affecting emergency response vehicles during sustained cold-weather operations.

In addition, operators supporting oil and gas development on Alaska's North Slope have informed the department that similar reliability issues are occurring in heavy equipment and industrial fleets operating in Arctic conditions. Because these industries rely on large diesel-powered equipment operating for extended periods in extreme cold, emissions-system reliability challenges can affect logistics operations and the movement of supplies supporting Alaska's energy infrastructure.

Together, these reports from transportation providers, emergency services, and industrial operators indicate that emissions-system reliability challenges in sustained cold-weather environments are affecting multiple sectors responsible for maintaining transportation access and public safety across Alaska.

Remote Repair Logistics

The logistical challenges associated with repairing emissions-system failures are particularly significant in Alaska's remote regions. In many rural communities and maintenance districts, mechanics and specialized diagnostic tools are not located onsite. When equipment fails in these locations, repairs often require technicians and replacement parts to travel long distances by aircraft or highway before work can even begin.

For example, along the Dalton Highway, one of the most remote highway corridors in North America, maintenance equipment and commercial vehicles operate hundreds of miles from major maintenance facilities. When emissions-system failures occur along this corridor, mechanics and repair equipment must often travel long distances from Interior Alaska to reach the affected location. During winter conditions, these response times can be extended by severe weather, limited daylight, and hazardous travel conditions.

Similar challenges occur in Alaska's aviation-dependent rural communities. In Western Alaska, when a DEF-related system fault occurs on heavy equipment in communities such as Kotzebue, Nome, Bethel or surrounding villages, mechanics must first secure seats on limited regional air service to reach the affected community. Because these flights may operate only once per day, and are frequently delayed or canceled due to weather, it can take several days before a mechanic is able to arrive, diagnose the issue, and complete repairs.

During that time, critical equipment may remain out of service. In aviation-dependent communities, this can mean airport snow removal equipment is unavailable to clear runways during winter storms, potentially delaying or preventing aircraft operations until the equipment can be repaired and returned to service.

Workforce and Maintenance Capacity

Maintaining modern diesel engines equipped with advanced emissions-control systems requires specialized diagnostic tools and highly trained mechanics. Across Alaska, transportation providers face ongoing challenges recruiting and retaining qualified mechanics with the expertise required to diagnose and repair these increasingly complex systems.

These workforce constraints compound the operational challenges created by emissions-system failures. When equipment requires specialized diagnostics or repairs, the limited number of qualified mechanics available across the state can extend repair times and delay the return of critical equipment to service.

These challenges are further intensified by Alaska's geography. When failures occur in remote maintenance districts, rural airports, or along isolated highway corridors, the mechanics capable of performing the repair may be located hundreds of miles away. The time required for technicians to travel to these locations, often by aircraft or long-distance highway travel, adds additional delays before repairs can even begin. As a result, workforce capacity limitations and Alaska's remote operating environment combine to extend equipment downtime during periods when transportation systems must remain fully operational during severe winter conditions.

Why Action Is Needed

The operational pressures described above are already producing measurable consequences across Alaska's transportation system. Emissions-system reliability issues are increasing safety risks for transportation operators and maintenance crews, driving higher fleet maintenance and repair costs, and reducing the ability to respond quickly to disruptive events affecting the transportation system.

For highway maintenance crews, equipment failures during severe winter storms can slow snow removal operations and

extend the time required to reopen highways after storms. In some cases, equipment has been transported hundreds of miles to reach facilities capable of performing repairs. One recent example involved a maintenance unit that had to be hauled more than 500 miles for repairs following an emissions-system failure, resulting in more than $45,000 in operating and replacement costs while the equipment remained out of service.

The consequences are magnified in Alaska's remote regions. When emissions-system failures occur in rural maintenance districts or aviation-dependent communities, mechanics and replacement parts may need to travel hundreds of miles by aircraft or highway before repairs can even begin. During these delays, essential equipment such as airport snow removal machinery may remain out of service, potentially limiting aviation access for passengers, freight deliveries, and emergency medical services.

At the same time, Alaska's transportation system supports national priorities associated with Arctic logistics, national defense mobility, and the movement of energy and resource development supplies. Maintaining reliable equipment performance under these conditions is essential to keeping these transportation systems functioning safely and consistently.

Federal policy has already recognized that mission-critical systems operating in remote Arctic and sub-Arctic environments may require operational flexibility to maintain reliability. For example, EPA regulations provide accommodations for diesel-powered generators that supply electricity to isolated rural communities in Alaska, where power systems must operate continuously in remote cold-weather conditions. Similarly, military equipment operating in extreme environments has long been granted operational flexibility to ensure mission readiness in severe cold.

The Cold Weather Diesel Reliability Act reflects the same practical recognition, that equipment operating for extended periods in sustained below-freezing temperatures may require different operating considerations than equipment designed primarily for temperate climates.

Conclusion

Transportation systems across Alaska operate under some of the most demanding environmental conditions in the United States. Long winter seasons, sustained below-freezing temperatures, vast distances, and remote transportation corridors create conditions where equipment reliability is directly connected to life safety and the continued movement of freight, fuel, and essential supplies. In many areas of the state, highways and airports provide the only transportation connection between communities, leaving no practical alternatives when disruptions occur.

The Cold Weather Diesel Reliability Act provides a targeted and practical response to these challenges by recognizing the unique operating conditions faced by transportation systems in Arctic and sub-Arctic environments. Providing flexibility for equipment operating in sustained cold-weather conditions would help ensure that transportation providers can maintain reliable operations while continuing to support national goals of reducing emissions and improving air quality.

Alaska also continues to support national efforts to reduce transportation emissions and adopt emerging technologies. DOT&PF has recently achieved federal certification that Alaska's Alternative Fuel Corridor under the National Electric Vehicle Infrastructure (NEVI) program between Anchorage and Fairbanks is fully built out, providing publicly accessible fast-charging infrastructure along approximately 358 miles of highway connecting Alaska's major population centers.

Members of the Committee are welcome to visit Alaska to see these operating conditions firsthand. Whether traveling Alaska's highways alongside the operators and truck drivers who keep freight moving during winter storms, or flying to rural communities that depend on aviation as their primary transportation lifeline, observing these operations directly provides a clear understanding of the challenges involved. The Alaska Department of Transportation and Public Facilities would be honored to host members of the Committee and their staff and provide the opportunity to experience these operating conditions directly.

Thank you for the opportunity to testify. I appreciate the Committee's attention to this issue and look forward to answering any questions.

Ryan Anderson, P.E.
Commissioner
Alaska Department of Transportation and Public Facilities

Senator CAPITO. Thank you, Mr. Anderson.

I will now recognize Senator Lummis to introduce our next witness, Todd Fornstrom.

Senator LUMMIS. Thank you, Madam Chairman and Ranking Member Whitehouse. I want to thank the members of the committee, certainly want to thank Senator Sullivan for sponsoring this bill.

This subject came to my attention when a constituent of mine in Cheyenne, Wyoming, was imprisoned for fixing diesel engines so they would run in cold weather. He was imprisoned not because he broke the law, but because he broke a rule, a rule that was created back here in Washington, DC, where it never gets below zero, where it never gets below 10 degrees, by people who do not understand that there are other ways to protect the environment from NOx, other than this one device that they require.

They required this one device, no alternatives, diesel mechanics have been trying to keep these diesel engines running by altering the required emissions control systems. Thank goodness, President Trump pardoned Troy Lake. It was an absurd result. You look at these big cities that are letting violent criminals go because they broke the law, and yet they threw a diesel mechanic, a good man, in prison because he is fixing diesel engines so they will run in cold weather, school buses, ambulances, trucks.

I am just so offended that our Nation would do that to someone. You have constituents, Senator Sullivan, that are being prosecuted under that same law. Hopefully, they are not getting thrown in prison for it yet. My constituent was.

There is a solution that can solve the air quality issues without shutting down the engines. That is why I am so grateful you are sponsoring this bill, Senator Sullivan, and I am grateful that my Farm Bureau president, Mr. Fornstrom, would come today and testify about this.

Todd Fornstrom is a fourth-generation farmer from Pine Bluffs, Wyoming. He works the land there alongside his father. He runs his own trucking and combining businesses.

His dedication to advancing and advocating Wyoming agriculture and the Farm Bureau has earned him the trust of our Farm Bureau members who have elected him to serve a ninth term as president.

Farming is tough work. Sunrise to sunset, no days off, everything goes wrong Friday after 5 p.m. I know it from personal experience.

Mr. Fornstrom brings first-hand experience with these issues. When the environmental policies that we invoke to protect our air makes it so we can not even run our equipment in cold weather, we have to find a solution. It can not be by electing Lee Zeldin to be the permanent director of the EPA. We know that the director is going to change. We know some day there is going to be a Democrat administration that is going to try to reverse everything that Lee Zeldin is doing at the EPA.

That is why it has to be in law. We have to rationalize and bring common sense on issues that are being administered without any common sense. This is one of them.

I am so delighted Mr. Fornstrom is here today He has personal experience operating in some of the harshest winter conditions in

the Country, with heavy snowfall, high winds, temperatures very routinely below 20 degrees. We call that balmy, 20. When it gets below zero it is starting to get kind of cold. Those conditions present serious challenges for equipment and emissions systems designed without reality in mind.

Mr. Fornstrom, thanks so much for coming. Thanks for your willingness to share your experience and perspectives with the committee today. I look forward to hearing your testimony.

Thank you, Madam Chairman. I yield back.

Senator CAPITO. Thank you, Senator Lummis.

Mr. Fornstrom, thank you, and welcome. Please proceed with your statement.

STATEMENT OF TODD FORNSTROM, PRESIDENT, WYOMING FARM BUREAU FEDERATION

Mr. FORNSTROM. Thank you.

Chairman Capito, Ranking Member Whitehouse, and members of the committee, thank you for the opportunity to testify today on the impact of diesel exhaust fluid, or DEF, on the agricultural community.

My name is Todd Fornstrom. I am a fourth-generation farmer. I farm with my father outside of Pine Bluffs, Wyoming. We grow irrigated corn, wheat, alfalfa, and dry beans, which are pinto beans. I operate a pellet mill, Premium Hay Products. I have a combining business and now we have a trucking business. We stay busy.

It is an honor to represent nearly 12,000 members of the Wyoming Farm Bureau Federation and nearly 5 million members of the American Farm Bureau.

Farmers depend on clean air and clean water. The natural resources impact long-term productivity, which is why the Farm Bureau supports policies that balance environmental goals with the economic and operational results. However, the requirement of DEF in agriculture equipment has created significant challenges for farmers across the Country. While designed to improve the quality, operational and financial burdens for the agriculture sector have ben increased.

DEF became widely used on farms following EPA's Tier 4 emissions standards. Today, most large tractors, combines and sprayers all are required to have DEF to operate. Farmers have experienced several problems with the systems. Reliability in harsh operating conditions is a major concern.

Farmers operate in extreme dust, dirt, temperature and constant vibration. These DEF systems included in the tanks, pumps and sensors can struggle in those environments.

In cold climates like Wyoming, DEF can freeze. Although the machines have heaters designed to prevent this, the systems do malfunction. To keep those properly running, it is a major problem. If they fail, the engine can reduce power, or shut down entirely, often during critical periods such as planting, harvesting and feeding.

The Cold Weather Diesel Reliability Act addresses some of these concerns. The legislation would allow manufacturers to suspend automatic engine derates or shutdowns caused by the DEF malfunctions while temperatures are at or below freezing. It would also exempt, for equipment, exemptions for equipment operating pri-

marily in extremely cold regions. For farmers working in the harsh winter conditions, these changes are essential to maintaining reliable operations.

Farmers also face contamination risk. DEF has to remain extremely pure to operate correctly. Farm environments are full of dust, dirt, and other contaminants. Even small amounts can cause system failures and shutdowns and costly repairs.

These DEF systems rely heavily on electronic sensors. If a sensor detects a problem, the machine can still run most of the time, but most of the time it automatically reduces power and goes into a limp mode or a derate mode, or it shuts down altogether.

While designed for emissions compliance, these systems can disrupt critical farm operations that depend on the equipment running continuously and for long hours. Beyond reliability concerns, DEF has added significant cost to farming operations. Farmers most regularly purchase DEF and invest in proper storage systems to prevent freezing and degradation, another added cost. Many operations have installed heated and insulated tanks and special dispensing equipment also.

Maintenance and repair costs can also be substantial. Maintenance on sensors, injectors, are also expensive to fix. These costs come at a time when farmers are already facing rising input costs, volatile commodity prices and unpredictable weather.

Profit margins in agriculture are already razor thin. These DEF requirements have added just another layer of financial and operational pressure.

We appreciate the leadership of Senator Sullivan and Senator Lummis in introducing this legislation, which addresses the challenges DEF systems pose on these cold climates. The agricultural community believes that Congress should go further and carefully weigh the environmental benefits of DEF systems against the reliability issues and economic costs.

Farmers are calling on the elimination of DEF requirements on agricultural equipment so producers can focus on productivity, efficiency, and feeding the Country.

Thank you again for the opportunity to testify. I look forward to answering any of your questions. Thank you.

[The prepared statement of Mr. Fornstrom follows:]

Wyoming Farm Bureau® Federation

Testimony for Todd Fornstrom, President of Wyoming Farm Bureau Federation,

before the Senate Environment and Public Works Committee

"Hearing to examine S. 3135, the Cold Weather Diesel Reliability Act"

March 11, 2026

Chairman Capito, Ranking Member Whitehouse, and Members of the committee, I appreciate the opportunity to testify today on the impact of diesel exhaust fluid (DEF) on the agricultural community. My name is Todd Fornstrom, I am a fourth-generation farmer and President of the Wyoming Farm Bureau Federation. I am proud to farm with my father near Pine Bluffs, Wyoming, where we maintain a diversified farm that produces irrigated corn, wheat, alfalfa, and dry beans. I also own and run Premium Hay Products, an alfalfa pellet mill and run a trucking business and custom combining business. It is an honor to be here on behalf of the nearly 12,000 members of the Wyoming Farm Bureau Federation and the more than 5 million members of the American Farm Bureau Federation.

Clean air and water are essential to successful farms and ranches. Agriculture depends on natural systems, and the quality of the air and water surrounding a farm strongly influence crop growth, soil health, livestock well-being, and overall productivity. When these resources are clean and abundant, farmers are better able to produce healthy food, maintain sustainable land practices, and support the long-term viability of their farms.

Farm Bureau believes effective and sound environmental policies are those that balance economic, social, and environmental outcomes. Farmers today must continually adapt their operations to navigate an evolving regulatory landscape that affects how they produce, manage, and bring their goods to market. The requirement for farmers to use diesel exhaust fluid (DEF) in agricultural equipment has created significant concern. DEF was introduced as part of modern emissions systems to help reduce harmful pollutants from diesel engines and improve air quality. However, this technology has placed incredibly onerous burdens on the agricultural sector.

What is DEF?

DEF is a liquid solution used in modern diesel engines to reduce emissions. It is made from a mixture of high-purity urea and deionized water and is stored in a separate tank on vehicles and equipment equipped with selective catalytic reduction (SCR) systems. DEF itself is not a fuel or fuel additive. Instead, it is part of the emissions control system designed to lower the amount of nitrogen oxides (NOx) released into the atmosphere by diesel engines.

When a diesel engine operates, it produces exhaust gases that include NOx. In engines equipped with SCR technology, DEF is injected into the exhaust stream after combustion occurs. The heat of the exhaust causes the DEF to break down into ammonia, which then reacts with the nitrogen oxides inside the catalytic converter. This chemical reaction converts the exhaust gases into nitrogen and water vapor, both of which are naturally present in the atmosphere.

How DEF Impacts Agriculture

DEF became a part of farms and ranch operations due to the Environmental Protection Agency's (EPA) Tier 4 emissions regulations, first finalized in 2004 and phased in from 2008 to 2015. These rules require modern diesel engines to drastically reduce NOx and particulate emissions, prompting farm equipment manufacturers to adopt SCR systems that use DEF. By 2015, most large tractors, combines, and sprayers were equipped with DEF tanks, and regulations required operators to maintain proper fluid levels to ensure emissions compliance. Over the following years, the agricultural community began to realize the many problems associated with DEF. I would like to highlight the challenges that many farmers and ranchers across Wyoming, and this country, face in their pursuit to comply with DEF mandates.

Reliability in harsh operating conditions

Farmers and ranchers have raised significant concerns about the reliability of DEF systems when operating in the harsh conditions often encountered on farms. Agricultural equipment is frequently exposed to extreme temperatures, dust, dirt, and vibration, all of which can affect the performance of DEF tanks, pumps, and sensors. For instance, DEF can freeze in cold weather, requiring heating systems that must function properly to avoid interruptions. Likewise, high summer temperatures can accelerate fluid degradation if storage and handling are not carefully managed. These environmental factors can make maintaining DEF reliability more complicated than simply keeping fuel tanks full.

The *Cold Weather Diesel Reliability Act of 2025*, introduced by Senators Dan Sullivan (AK) and Cynthia Lummis (WY), aims to address problems that diesel-powered vehicles and

equipment requiring DEF face in extreme cold environments. The bill would direct the EPA to allow manufacturers to suspend automatic engine derates or shutdowns triggered by emissions-control malfunctions when ambient temperatures are at or below freezing. It would also require the EPA to grant a year-round exemption from DEF system requirements for vehicles and equipment that primarily operate in very cold regions or encounter extensive freezing conditions that make DEF use difficult. These changes are needed to keep essential diesel machines running safely in cold climates.

Living and farming in Wyoming, dealing with DEF in the winter can feel like a battle against both the cold and the clock. Temperatures routinely drop well below freezing, and if DEF freezes or the SCR system triggers an engine derate, it can bring a tractor or combine to a halt right in the middle of critical planting or feeding windows. Storing DEF properly is a constant challenge, and even when tanks are heated, there's always the worry that sensors or pumps will fail in subzero conditions. For many of us, what should be a simple maintenance task becomes a high-stakes operation, where any delay can cost time, money, and crop yield. The technology works in theory, but in Wyoming's harsh winters, it often feels like we're fighting the weather as much as we are our fields.

I recently heard from a rancher in Weston County, Wyoming, whose tank cracked on his 2014 Chevrolet Duramax due to frozen DEF after only one year of use. Thankfully, the repair was covered under warranty, however, it happened again within 2 years and this time there was no warranty to cover the repair. Additionally, this rancher's new John Deere tractor has a DEF heater as a part of the cold start package. The cold start system heats the DEF tank to prevent the liquid from freezing, resulting in incredibly high electricity bills. Unfortunately, this rancher was warned by others in the industry that he should anticipate having to trade in the tractor at around 2,000 hours because the DEF system is likely to start having issues, which can cost tens of thousands of dollars to fix.

Contamination and monitoring

Another major concern is the sensitivity of DEF systems to contamination. DEF must be high-purity urea mixed with deionized water, and even small amounts of dirt, oil, or water impurities can damage the SCR system or cause it to shut down. On farms, where dust, mud, and chemicals are commonplace, keeping DEF uncontaminated can be a daily challenge. Farmers worry that accidental contamination could lead to expensive repairs, equipment downtime, and lost productivity during time-sensitive operations like planting or harvesting.

Farmers also report concerns about the electronic monitoring systems tied to DEF. Modern SCR systems are equipped with sensors that track DEF levels and system performance,

and if a sensor detects an issue, the engine may enter a restricted power mode or refuse to start. While this is intended to ensure emissions compliance, it can be highly disruptive on a farm where equipment often needs to run long hours without interruption. Many farmers feel that these safety features add another layer of complexity and risk to day-to-day operations.

Overall, the realities of farm life—extreme weather, dust, contamination risks, and reliance on precise electronic monitoring—mean that the reliability of DEF systems is a constant concern. Farmers must balance regulatory compliance with practical operational needs, making DEF management a frustrating part of modern agriculture.

Added cost to farming operations

The adoption of DEF systems has introduced a range of new costs for farmers, impacting their balance sheets in ways that go beyond the price of the fluid itself. Farmers must budget not only for the ongoing purchase of DEF, which can fluctuate with supply and market conditions, but also for additional infrastructure such as heated or insulated storage tanks, pumps, and dispensers to maintain fluid quality throughout the year. These upfront and recurring expenses add a layer of financial complexity that didn't exist before.

Maintenance and repair costs are another significant factor. As discussed previously, DEF systems are sensitive to mechanical failure, and any malfunction can trigger engine derates or shutdowns. Repairs to SCR components, DEF injectors, or sensors are often expensive, and unexpected downtime can result in lost productivity during critical planting or harvesting periods. For farmers operating on tight margins, even a short delay can affect crop yield, contract obligations, or livestock feeding schedules, which translates directly into financial losses.

Finally, there are indirect costs associated with managing DEF compliance. Farmers must train staff to handle DEF safely, and sometimes transport fluid from off-site suppliers if the on-farm supply runs low. All of these activities require labor, time, and logistical coordination that represent a tangible expense on the farm's balance sheet. Taken together, the combination of fluid purchase, storage infrastructure, maintenance, and operational management makes DEF compliance a recurring and often underestimated cost of modern farming, subtly shifting the economics of agricultural operations.

It's important to remember that the farm economy today is under tremendous strain, with rising input costs, volatile commodity prices, and unpredictable weather already squeezing profit margins for producers. Against this backdrop, DEF requirements have added another layer of financial and operational pressure and farmers are navigating new challenges at a time when margins are already razor-thin. What was intended as an environmental

safeguard has, for many in the industry, become an additional burden on an already struggling sector, highlighting the need for policies and technologies that recognize the economic realities of farming.

For all of the reasons outlined in this testimony, the farming community calls for the elimination of DEF requirements in farming equipment. Removing DEF mandates would allow farmers to focus on productivity and efficiency without the constant burden of managing a sensitive emissions system.

EPA actions on DEF

Under the Trump administration, the EPA recently made a few regulatory changes aimed at addressing farmers' concerns about DEF systems. In August 2025, the EPA issued new guidance urging engine and equipment manufacturers to revise DEF system software so that equipment does not immediately lose power or shut down when DEF levels are low or a sensor fault is detected, which helps prevent sudden derates that leave tractors stranded in fields.

Beyond easing derate requirements, the EPA also clarified that under the Clean Air Act, farmers and owners of non-road diesel equipment have the right to repair their own DEF and emissions systems without being restricted by manufacturers, which will hopefully reduce repair costs and downtime. Additionally, the EPA has asked major diesel engine manufacturers to submit detailed data about DEF system failures so the agency can evaluate whether systemic problems exist and potentially inform future rulemaking that could further reduce the burden of DEF compliance.

Conclusion

We greatly appreciate the work of Senators Sullivan and Lummis and their commitment to solving some of the longstanding challenges associated with using DEF in cold climates. We urge this Committee to pass this legislation to allow for more immediate relief to farmers. However, the problems with DEF do not stop there. The agricultural sector encourages Congress to carefully weigh the environmental benefits of DEF systems against their operational costs and reliability concerns and eliminate DEF requirements for farmers to help reduce burdens on an already struggling agricultural sector. Thank you for the opportunity to testify today.

Questions for the Record:

Senator Whitehouse: 1. Are you aware of any evidence demonstrating that (a) hot temperatures (b) dust or (c) any

other conditions (please identify and describe these conditions, if applicable) encountered

during farming interfere with the functioning of DEF systems? If yes, please provide this

evidence.

President Todd Fornstrom:

The problems with DEF in Wyoming for hot temperatures are similar to the cold weather issues. The fluctuations in temperature from mid 80 to 90 degrees degrade the DEF with every cycle of temperature. As the temperature cycles and the quality of DEF declines, the equipment starts to sense the degradation and at some point, leaves the equipment in a fault status. The higher the temperature the faster the degrade. As farmers, we try to insulate our cost so we buy in bulk and when we do that we expose ourselves to storage costs and/or breakdown of the DEF.

When it comes to contaminates like dust, DEF systems are very sensitive. Dust is an understood reality to farming and ranching which leaves our industry with an obvious issue. If I could consistently get the lid off the tank and hold the 24 lb. box of DEF at shoulder level without spilling, while dealing with a 15-mph crosswind, I could eliminate contaminating my tank. The reality of our environment most likely guarantees contamination even at the smallest threshold.

Senator CAPITO. Thank you very much.

Finally, we will hear from John Walke, the Director for Clean Air Programs, and Senior Attorney, at the Natural Resources Defense Council. Mr. Walke has spent his career in Washington, previously working at the EPA as an attorney in the General Counsel's office.

He is, as I am, a graduate of Duke University. We are looking pretty good this year.

Mr. Walke, welcome, and please proceed with your opening statement.

STATEMENT OF JOHN WALKE, DIRECTOR FOR CLEAN AIR PROGRAMS AND SENIOR ATTORNEY, NATURAL RESOURCES DEFENSE COUNCIL

Mr. WALKE. Thank you, Chairman Capito, and Ranking Member Whitehouse, for the opportunity to testify today.

I will start my statement with some reasons why I do not support today's legislation. Then my statement will address where congressional engagement is needed most: conducting crucial oversight and pushbacks against an executive branch carrying out historically sweeping harmful attacks on Americans' health and air quality safeguards.

Turning to S. 3135. In response to concerns relating to cold temperatures impacting the DEF system, EPA has directed manufacturers both to update onboard software and design engines to be able to run for periods of time without NOx controls and without entering the limp mode. Last month, EPA requested that manufacturers provide information to EPA within 30 days on DEF system failures. A public process administered by EPA which would include public notice and comment opportunities can solicit important data and information and is the appropriate avenue to address all relevant issues.

I am unaware of any other provision in the Clean Air Act that would exempt an entire State from any of the law's requirements, as today's bill would do, or exempt activities anywhere in the Country when it is "impractical" regardless of cold weather, because of the word "or" in the bill. I urge Congress not to start here.

Next, EPA Administrator Zeldin boasts that he has undertaken the largest campaign of deregulation in U.S. history. Since then, EPA has proposed or finalized rules to roll back strong clean air protections that allow dangerous air pollution to increase by hundreds of millions of tons. Last year, U.S. power plants that burn coal increased dangerous air pollution by the second most that they have over the past 30 years. Sulfur dioxide increased by 18 percent; smog-forming NOx nearly 12 percent.

EPA data show that the average amount of coal-fired electricity generation was dirtier last year than in 2024, the result of more coal being burned to generate electricity and a sign that owners are dialing back or turning off pollution controls.

An article just yesterday shows that EPA is refusing to tell Americans what factors might be behind these pollution spikes or how the increases are consistent with Administrator Zeldin's pledge to ensure clean air for all Americans. This committee should bring Administrator Zeldin before it to answer these questions and to examine his rollbacks and pollution increases.

The following is just a partial list of dangerous EPA rollbacks. EPA plans to roll back health standards for deadly soot pollution and reinState unsafe standards. Independent scientists confirm that this type of pollution results in many thousands of preventable deaths and hundreds of thousands of cases of avoidable asthma attacks.

Not coincidentally, EPA abruptly announced in January it will not longer value health benefits from clean air safeguards, and EPA will assign these important benefits zero dollars. EPA will only count industry compliance costs.

President Trump himself has issued seven different proclamations across six industries exempting 180 facilities from hazardous air pollution standards. EPA has eliminated stronger standards for mercury and toxic soot pollution. EPA also repealed the need for continuous pollution monitors, after Administrator Zeldin found that $1,167 per month for each piece of polluting equipment cost too much to disclose to Americans how much toxic emissions are coming into their communities. Eleven hundred and sixty-seven dollars costs too much to improve pollution control performance in compliance.

EPA plans to roll back carbon pollution standards for power plants, and they have already rolled back the endangerment finding for greenhouse gases and repealed motor vehicle standards as Senator Whitehouse said. This will mean annual increases of 410 million metric tons of greenhouse gases, 2.1 million tons of carbon monoxide, and over 270,000 tons of smog pollution.

A reporter asked President Trump at the vehicle rollback announcement what he would tell Americans concerned about the rollback coming at a cost to public health and the environment. The President replied, "I tell them, do not worry about it, because it has nothing to do with public health." He misunderstood that the rule will cost Americans more, and he concluded, "They'll have more money to spend for health care."

Thank you for the opportunity to testify today.

[The prepared statement of Mr. Walke follows:]

TESTIMONY OF JOHN D. WALKE

FEDERAL CLEAN AIR DIRECTOR

NATURAL RESOURCES DEFENSE COUNCIL

LEGISLATIVE HEARING ON S. 3135

THE COLD WEATHER DIESEL RELIABILITY ACT OF 2025

BEFORE THE ENVIRONMENT & PUBLIC WORKS COMMITTEE

U.S. SENATE

March 11, 2026

Thank you, Chairman Capito and Ranking Member Whitehouse for the opportunity to testify today. My name is John Walke, and I am the Federal Clean Air Director and a senior attorney for the Natural Resources Defense Council (NRDC). NRDC is a nonprofit organization of scientists, lawyers, and environmental specialists dedicated to protecting public health and the environment. Founded in 1970, NRDC has more than three million members and online activists nationwide, served from offices in New York, Washington, Santa Monica, San Francisco, and Chicago.

I have worked at NRDC since 2000. Before that I was a Clean Air Act attorney in the Office of General Counsel for the U.S. Environmental Protection Agency ("EPA"). Prior to that, I was an attorney in private practice where I represented corporations, industry trade associations and individuals. Having worked on air pollution issues for the entirety of my career, I believe today's bill is unnecessary and harmful to the health of Alaskans and other Americans and should not advance.

I. INTRODUCTION

All Americans want safe, clean air. All members of Congress want the same. Unfortunately, Americans are being let down by a congressional failure to conduct crucial oversight and pushback against an executive branch carrying out

historically sweeping, harmful attacks on public health and air quality safeguards guaranteed to all of us by the Clean Air Act. The Clean Air Act of 1990 passed with overwhelming bi-partisan majorities—89-10 in the Senate and 401-21 in the House—yet the current administration is systematically dismantling safeguards guaranteed in that law, including protections against smog, soot, sulfur dioxide, methane, carbon dioxide, and hazardous air pollution that causes cancer, brain damage, miscarriages and infertility.

The current head of the Environmental Protection Agency (EPA), Administrator Lee Zeldin actively boasts that he is executing the largest enterprise of deregulation in U.S. history while paying lip service to clean air and clean water.[1] This EPA has proposed or finalized rules to roll back stronger clean air limits and thereby allow dangerous air pollution to increase not just by thousands of *tons*, not just by tens of thousands of tons, but by *hundreds of millions* of tons. *See infra* Section III. At the same time, Administrator Zeldin appears to have signed just one rule to reduce air pollution beyond limits in current regulations—and even that action marks a substantial retreat from the stronger proposed rule by the prior administration.[2]

And what have the consequences been so far? Last year, U.S. power plants that burn coal *increased* dangerous air pollution by the second most that they have over the past thirty years.[3] The increases were staggering, by historic standards: sulfur dioxide emissions nationally increased by 18%, with emissions in several states increasing by more. By contrast, this type of air pollution fell by seven percent in 2024 before the current administration took office. Smog-forming nitrogen oxides (NO_x) increased by nearly eight percent and carbon dioxide emissions increased by four percent. For NO_x and SO_2 emissions, increases were greater than the increase in power production from those plants, meaning that the average amount of coal-fired electricity generation was dirtier in 2025 than in 2024. This is the

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[1] U.S. EPA, News Release, *EPA Launches Biggest Deregulatory Action in U.S. History* (Mar. 12, 2025), https://www.epa.gov/newsreleases/epa-launches-biggest-deregulatory-action-us-history.

[2] Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Large Municipal Waste Combustors Voluntary Remand Response and Five-Year Review, (Mar. 5, 2026) Dkt. No. EPA-HQ-OAR-2017-0183, https://www.epa.gov/system/files/documents/2026-03/large-municipal-waste-combustors-final-rule-prepub_0.pdf; *see infra* note 43.

[3] The largest increase occurred in 2021, when the U.S. economy was coming out of the historically unprecedented COVID lockdowns. This makes the coal power sector's emissions increases during this administration's first year the worst in thirty years occurring in normal economic conditions.

result of more coal being burned to generate electricity, and also a sign that power plant owners dialed back or turned off air pollution control equipment on their plants more last year.

The transportation sector is a major source of dangerous air pollution in the United States. Diesel pollution accounts for over 60% of all smog-forming NO_x and 70% of fine particulate matter from all U.S. transportation sources.[4] Because the transportation sector accounts for nearly half (45%) of total NO_x pollution in the U.S., diesel vehicles alone account for 27% of all NO_x pollution nationwide.[5] Earlier this year, EPA completely eliminated greenhouse gas (GHG) motor vehicle emissions standards (which will add, by EPA's own emission, 410 million metric tons of GHG's into the atmosphere[6] and impose a net cost of $180 billion, while costing Americans over a trillion dollars in increased fueling and maintenance costs; these figures do not even include additional health and climate costs[7]). Aaron Szabo, EPA's Assistant Administrator for the Office of Air and Radiation, has said publicly that additional deregulatory actions will occur in 2026, including the 2022 Heavy-Duty Engine and Vehicle NO_x rule.[8]

I will briefly discuss S. 3135 and why I do not believe that it is warranted to grant exemptions from Clean Air Act emissions control standards for diesel vehicles and equipment.

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[4] *Diesel Engines and Public Health*, Union of Concerned Scientists (Sept. 26, 2024), https://www.ucs.org/resources/diesel-engines-public-health#:~:text=Health%20impacts%20of%20diesel%20pollution,all%20fine%20particulate%20matter%20(PM2.

[5] U.S. EPA, *Smog, Soot, and Other Air Pollution from Transportation*, https://www.epa.gov/transportation-air-pollution-and-climate-change/smog-soot-and-other-air-pollution-transportation (last updated Aug. 7, 2025).

[6] U.S. EPA, Projected Criteria, Air Toxics, and GHG Emissions Impacts for the "Rescission of the Greenhouse Gas Endangerment Finding and Motor Vehicle Greenhouse Gas Emission Standards Under the Clean Air Act" Final Rule 18 (Feb. 18, 2026), Dkt. No. EPA-HQ-OAR-2025-0194-31055, https://www.regulations.gov/document/EPA-HQ-OAR-2025-0194-31055.

[7] U.S. EPA, Rescission of the Greenhouse Gas Endangerment Finding and Motor Vehicle Greenhouse Gas Emission Standards Under the Clean Air Act: Regulatory Impact Analysis 22, 28 (Feb. 18, 2026), Dkt. No. EPA-HQ-OAR-2025-0194-31090, https://www.regulations.gov/document/EPA-HQ-OAR-2025-0194-31090.

[8] Aaron Szabo, *EPA will keep its foot on the gas in 2026, ending burdensome regulations*, The Hill (Dec. 19, 2025), https://thehill.com/opinion/energy-environment/5653704-epa-will-keep-its-foot-on-the-gas-in-2026-ending-burdensome-regulations/.

II. S. 3135

To meet EPA NO_X emissions standards and better protect Americans from smog-forming NO_X, manufacturers build diesel engines to include a selective catalytic reduction (SCR) emissions control system.[9] As the vehicle runs, engine components inject diesel emission fluid (DEF) from a tank inside the engine into the exhaust stream. There, it reacts with NO_X and breaks it down into harmless nitrogen and water.[10] This process can reduce NO_X emissions by as much as 90%.[11]

Diesel vehicle drivers purchase DEF and refill the tanks when necessary—for diesel trucks, this is about once every 3,500 to 5,000 miles,[12] and for cars, about once every 5,000 to 7,000 miles.[13] To ensure compliance with federal requirements, diesel engines build in "inducements" to prevent the driver from neglecting to replace the DEF. In practice, this means that diesel engines are designed to derate and enter so-called "limp-mode," which caps the top speed of the vehicle for a set period of time after the DEF tank runs out or the system fails. Limp mode usually starts by capping speed around 50 mph, but if the driver fails to address the underlying problem within several hours of driving in limp mode, the vehicle may slow to five mph.

Diesel emission fluid can freeze when temperatures fall below 12 degrees Fahrenheit.[14] EPA and engine manufacturers have known this for at least two

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[9] *Selective Catalytic Reduction*, Engine Tech. Forum, https://enginetechforum.org/selective-catalytic-reduction-scr (last visited March 9, 2026).
[10] *Id.*
[11] Md. Dep't of the Env't, *Facts About Selective Catalytic Reduction (SCR)*, https://mde.maryland.gov/programs/air/MobileSources/documents/selective%20catalytic%20reduction%20_scr_%20fact%20sheet.pdf (last visited March 9, 2026).
[12] Lawrence Tolman, *Diesel Exhaust Fluid: Everything You Need to Know*, Diesel Power Products (Feb. 10, 2025), https://dieselpowerproducts.com/blogs/blogs/diesel-exhaust-fluid#:~:text=Given%20that%20an%20average%20tank,year%20before%20it%20goes%20bad.
[13] Kevin Buchaly, *What is DEF? How diesel exhaust fluid works and why it's essential for fleets*, Geotab (July 17, 2025), https://www.geotab.com/blog/how-diesel-exhaust-fluid-works/.
[14] It is worth noting that DEF does not freeze until 12 degrees Fahrenheit, *see* Shelby Thompson, *DEF Tank Heaters: Storage and Beyond*, Power Blanket (Dec. 17, 2018), https://www.powerblanket.com/blog/def-tank-heaters-storage-beyond/, but the Cold Weather Diesel Reliability Act purports to require exemptions for operations at 32 degrees Fahrenheit and below.

decades.[15] However, pursuant to EPA guidance from 2007,[16] DEF tanks are continuously heated by the engine while the vehicle operates.[17] The DEF tanks therefore cannot freeze while the vehicle is running unless the engine itself experiences a catastrophic failure independent from the DEF system.[18] Since 2009, EPA has directed manufacturers to design engines to be able to run without NO_x controls for 70 minutes, during which time the fluid can thaw, and the system can start to work as intended.[19] While the vehicle is running, the heat of the engine keeps the DEF liquid and flowing. In response to concerns that after 70 minutes, truck engines are programmed to "de-rate" or operate at slower speeds, last fall, EPA published guidance to manufacturers, calling for a software update for all new and existing diesel engines, allowing them to drive for thousands of miles without working NO_x pollution controls before de-rating occurs.[20] EPA took both actions, in 2009 and in 2025, without Congress needing to change the Clean Air Act. What's more, EPA has indicated it will write this into upcoming heavy-duty truck standards, again without a change in the statute.

The new EPA guidance directed manufacturers to update their sensor software, building in a significant additional "grace period" between DEF system failure and limp mode activation.[21] EPA has "urg[ed] engine and equipment manufacturers to revise their DEF system software in existing vehicles and equipment to reduce derates."[22] Under the new guidance, heavy duty diesel trucks would operate for

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[15] Letter from U.S. EPA, "Certification Procedure for Light-Duty and Heavy-Duty Diesel Vehicles and Heavy-Duty Diesel Engines Using Selective Catalytic Reduction (SCR) Technologies" 10 (Mar. 27, 2007) https://dis.epa.gov/otaqpub/display_file.jsp?docid=16677&flag=1.

[16] *Id.*

[17] *See, e.g.*, Shelby Thompson, *DEF Tank Heaters: Storage and Beyond*, Power Blanket (Dec. 17, 2018), https://www.powerblanket.com/blog/def-tank-heaters-storage-beyond/.

[18] *Id.*; *DEF System Deep Dive: How It Works + Symptoms of Failure*, North Texas Truck Stop (Nov. 21, 2025), https://www.northtexastruckstop.com/blog/blog-def-system-how-it-works-symptoms-of-failure/ ("The system is designed to be proactive—meaning it alerts you *long before* damage happens." (emphasis added)).

[19] Letter from U.S. EPA, "Revised Guidance for Certification of Heavy-Duty Diesel Engines Using Selective Catalyst Reduction (SCR) Technologies" (Dec. 30, 2009), https://dis.epa.gov/otaqpub/display_file.jsp?docid=20532&flag=1.

[20] U.S. EPA, Revised Guidance for Light Duty Vehicles, Heavy-Duty Diesel Engines and Nonroad Compression-Ignition (CI) Engines Using Selective Catalyst Reduction (SCR) Technologies (Aug. 11, 2025), https://www.epa.gov/system/files/documents/2025-08/def-ltr-manufacturer-2025-0811.pdf.

[21] *Id.*

[22] U.S. EPA, *Fact Sheet: Diesel Exhaust Fluid (DEF Guidance)* (Aug. 2025), https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P101HKDJ.pdf.

8,400 miles, or 160 hours, before capping at 25 mph.[23] That's enough time to drive across the entire United States three and one half times. This software update applies to both new and existing vehicles.[24]

On February 3, 2026, Administrator Zeldin took further action to address perceived concerns around DEFs by "demanding information from major diesel engine manufacturers on critical data from DEF system failures. The data collected will allow EPA to independently evaluate ongoing system failures and help inform next steps the agency takes in 2026…" with the stated goal of "taking another step to address any potential insufficiencies with system parts to better advance future rulemaking and reduce system failures."[25] Manufacturers must provide this information within 30 days (as authorized under Section 208(a) of the Clean Air Act).[26] It would be prudent for EPA to release the information they have collected, as public release of this information would help stakeholders understand the breadth and scope of DEF issues.

Administrator Zeldin has expressed that EPA is committed to "continue to work with all stakeholders to ensure practical, durable solutions that simultaneously support emissions reductions and reliable operations."[27]

Even if there are additional problems with DEF at very cold temperatures that EPA and manufacturers have not accounted for already, NRDC believes the better course of action is for EPA, manufacturers, diesel vehicle representatives, other stakeholders and interested members of the public to engage in technical, deliberative conversation about additional solutions. The present legislation short-circuits those discussions and solutions with one proposed solution that is overly broad. Further technical conversations beyond my expertise (and the expertise of Congress) may conclude that the proposed solution is over-inclusive, ripe for

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[23] U.S. EPA, News Release, *At Iowa State Fair, EPA Administrator Zeldin Announces Diesel Exhaust Fluid (DEF) Fix* (Aug. 12, 2025), https://www.epa.gov/newsreleases/iowa-state-fair-epa-administrator-zeldin-announces-diesel-exhaust-fluid-def-fix.

[24] U.S. EPA, *Fact Sheet: Diesel Exhaust Fluid (DEF Guidance)* (Aug. 2025), https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P101HKDJ.pdf.

[25] U.S. EPA, News Release, *Administration Zeldin Takes Additional Measures to Address Diesel Exhaust Fluid (DEF) Issues for American Farmers and Truckers*, (Feb. 3, 2026), https://www.epa.gov/newsreleases/administrator-zeldin-takes-additional-measures-address-diesel-exhaust-fluid-def-issues

[26] *Id.*

[27] U.S. EPA, News Release, *At Iowa State Fair, EPA Administrator Zeldin Announces Diesel Exhaust Fluid (DEF) Fix* (Aug. 12, 2025), https://www.epa.gov/newsreleases/iowa-state-fair-epa-administrator-zeldin-announces-diesel-exhaust-fluid-def-fix.

unintended consequences, unjustified, or justified with available solutions short of legislation. As discussed above, EPA is currently addressing the perceived issues through guidance to manufacturers, data collection, and a forthcoming regulatory process, making the proposed legislation unnecessary. A public regulatory process, which would include public notice-and-comment opportunities, can solicit important data and information on issues related to technology, cold weather challenges, and NO_x emissions from regulated entities and their impact on the public.

Having been a Clean Air Act attorney for over thirty years, I have learned to be wary of categorical exemptions from the law, such as the bill's exemption from diesel exhaust fluid system requirements for what is in effect an entire state. I am unaware of any other Clean Air Act provision (or even legislation) that exempts an entire state from any of the law's requirements, and the case has not been made to start here. Opening up the law to broad carveouts below a certain temperature, or in certain parts of the United States, can quickly erode public health. These are not idle concerns, as there already is harmful Senate legislation that would bar EPA from setting any pollution standards, anywhere in the United States, that require "the installation or maintenance of emissions control devices or onboard diagnostic systems on motor vehicles or motor vehicle engines."[28]

III. The Administration's Rollbacks and Attacks on Clean Air Act Protections

The EPA under this administration, and EPA Administrator Lee Zeldin, are executing a historically reckless, persistent, and harmful campaign to roll back clean air safeguards, increase dangerous air pollution, worsen air quality and public health, flout the reality of climate change, eliminate air pollution monitoring, and diminish enforcement of the Clean Air Act. These are the harmful actions that Congress should be investigating, condemning, countering and reversing. The following is just a partial list of the most sweeping, concerted and damaging rollbacks and attacks on U.S. clean air protections undertaken by any administration in EPA's history—all of which have occurred after January 20, 2025.

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[28] *See* Diesel Truck Liberation Act of 2025, S. 3007, 119th Cong. (2025), https://www.congress.gov/bill/119th-congress/senate-bill/3007/text.

A. Denying Americans the Right to Safe Air

Reinstating an unsafe health standard for deadly soot pollution. Administrator Zeldin wants to abolish the more protective annual health standard for fine particulate matter pollution that EPA determined will save lives and improve public health.[29] In 2024, EPA strengthened the annual health standard for tiny soot pollution from a level of 12 micrograms per cubic meter to 9 micrograms per cubic meter.[30] Prior to 2024, soot standards had not been improved since 2012.[31] Upon taking office, Administrator Zeldin made clear his intent to reinstate the unsafe 2012 health standard that medical science and EPA's official, independent science advisors confirm will result in many thousands of preventable deaths and hundreds of thousands of cases of avoidable asthma symptoms.[32] Indeed, this EPA has reversed its position in federal court to take the side of industrial polluters fighting to overturn the safer health standard for soot, and repudiated EPA's positions on the overwhelming scientific evidence for the safer standard. The agency and Administrator Zeldin have even taken the extraordinary, unprecedented step of asking the federal court to void the safer 2024 standard, peremptorily, *without* reaching the merits of the lawsuit that EPA fully briefed and argued in 2024 *in support* of that standard.[33]

B. Increasing Hazardous Air Pollution

The administration's actions to roll back standards limiting some of the most dangerous air pollution emitted by industrial facilities are noteworthy for their unprecedented, sweeping, emissions-increasing impacts.

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[29] *See* U.S. EPA, *Fact Sheet: Final Rule to Strengthen the National Air Quality Health Standard for Particulate Matter* (Feb. 2024), https://www.epa.gov/system/files/documents/2024-02/pm-naaqs-overview.pdf ("Strengthened standards will result in significant public health net benefits that could be as high as $46 billion in 2032. Health benefits will include up to 4,500 avoided premature deaths, 800,000 avoided cases of asthma symptoms, and 290,000 avoided lost workdays (in 2032).").

[30] Reconsideration of the National Ambient Air Quality Standards for Particulate Matter, 89 Fed. Reg. 16,202 (Mar. 6, 2024).

[31] *Id.*

[32] *See* U.S. EPA, *Fact Sheet: Final Rule to Strengthen the National Air Quality Health Standard for Particulate Matter* (Feb. 2024), https://www.epa.gov/system/files/documents/2024-02/pm-naaqs-overview.pdf.

[33] Respondents' Motion for Vacatur at 1, *Kentucky et al., v. U.S. EPA et al.*, No. 24-1050 (D.C. Cir. Nov. 24, 2025).

Exemptions from stronger hazardous air pollution standards granted to 180 large industrial facilities by President Trump and EPA. Since April of 2025, President Trump has issued seven different presidential proclamations across six industries, exempting 180 facilities from EPA hazardous air pollution standards.[34] These exemptions have not been tailored to individual facilities or specific standards under exceptional circumstances, but rather to entire industrial sectors or large segments of industries, covering:

- one-third of all U.S. coal-fired power plants;
- one-quarter of all U.S. chemical manufacturers;
- nearly half of the U.S. commercial sterilization industry;
- one of the nation's two primary copper smelters;
- the entire U.S. taconite ore processing industry; and
- the entire U.S. coke oven industry.

These exemptions allow companies to evade stronger hazardous air pollution standards (including better pollution limits and controls, monitoring, recordkeeping and reporting requirements) for at least two years, and to continue to emit dangerous levels of cancer-causing air pollutants, neurotoxins, respiratory irritants, and a range of other hazardous air pollutants.

To exempt these facilities, President Trump exploited a narrowly defined provision of the Clean Air Act: Section 112(i)(4) allows the president to grant exemptions from air toxics regulations in very limited circumstances.[35] A president may only grant an exemption where he determines (1) that the technology to implement the standard is "not available" *and* (2) that an exemption "is in the national security interests of the United States."[36] In the 35 years since Congress enacted Section 112(i)(4), no president had exercised this exemption authority. But, in 2025 alone, President Trump invoked this authority seven times. And not one of the presidential proclamations provides a meaningful, legitimate technological or national security basis for the exemptions.[37]

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[34] *See generally* NRDC, *A Free Pass to Polluters: Presidential Exemptions Using the Clean Air Act*, https://www.nrdc.org/court-battles/free-pass-polluters-presidential-exemptions-clean-air-act (last updated Mar. 3, 2026).

[35] 42 U.S.C. §7412(i)(4).

[36] *Id.*

[37] For example, President Trump exempted the entire coke ovens industry just weeks after EPA stated: "EPA does not believe that the currently available information supports a conclusion that regulated parties would face significant immediate compliance challenges" meeting the updated coke ovens standards. National Emission Standards for Hazardous Air Pollutants for Coke

These exemptions represent an abuse of authority. Safeguards based on public comment, extensive scientific review, and technical agency expertise have been suspended via unilateral executive action—a presidential proclamation—without notice to nearby communities, without an opportunity for meaningful engagement, without scientific review, and without any guardrails. The adverse health impacts are stark—delaying safeguards against hazardous air pollution that would, for example: reduce cancer risk for communities living near chemical manufacturers by 96%; and reduce cancer risk for communities living near commercial sterilizers by more than 92%.[38]

The result is not just weaker environmental protection but also a fundamental breakdown in democratic governance. Instead of regulations developed by an expert agency through public notice and comment and a scientifically backed rulemaking process, governed by statutory standards, pollution limits have been stalled by unsupported fiat.

Letting power plants that burn coal and oil emit more hazardous air pollution and evade continuous emissions monitors. In February 2026, EPA repealed the strengthened 2024 Mercury and Air Toxics Standards (MATS) for coal- and oil-fired power plants. The repeal allows these plants to emit more brain-damaging mercury and lead, as well as toxic soot pollution made up of heavy metals like

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Ovens: Pushing, Quenching, and Battery Stacks, and Coke Oven Batteries; Rescission of Extension of Compliance Deadlines for Coke Oven Facilities, 90 Fed. Reg. 56,010, 56,011 (Dec. 5, 2025). Moreover, EPA found that seven commercial sterilizers already met every one of the standards in that strengthened rule. National Emission Standards for Hazardous Air Pollutants: Ethylene Oxide Emissions Standards for Sterilization Facilities Residual Risk and Technology Review, 89 Fed. Reg. 24,090, 24,138 (Apr. 5, 2024). Most coal-burning power plants subject to the Mercury and Air Toxics Standards already had achieved the rule's stronger toxic soot pollution limit with installed air pollution controls. U.S. EPA, Fact Sheet: EPA's Final Rule to Strengthen and Update the Mercury and Air Toxics Standards for Power Plants, (Apr. 2024), https://www.epa.gov/system/files/documents/2024-04/fact-sheet_mats-rtr-final_rule_2024.pdf ("93% of coal-fired capacity without known retirement plans before the compliance period has already demonstrated an fPM emissions rate at or below" the 2024 standard).

[38] U.S. EPA, *Fact Sheet: EPA Issues Final Rule to Reduce Toxic Air Pollution from the Synthetic Organic Chemical Manufacturing Industry and the Polymers and Resins Industries* (Apr. 2024), https://www.epa.gov/system/files/documents/2024-04/chem-sector-final-rule.-overview-fact-sheet_0.pdf; National Emission Standards for Hazardous Air Pollutants: Ethylene Oxide Emissions Standards for Sterilization Facilities Residual Risk and Technology Review, 89 Fed. Reg. 24,090, 24,095 (Apr. 5, 2024).

arsenic, nickel, chromium and cadmium.[39] Those emissions put the public at greater risk of heart and lung disease, cancer, miscarriages, infertility, and premature death.[40] At the same time, EPA also eliminated a common-sense requirement that power plants install cost-effective systems to continuously monitor the amount of pollution they emit—depriving communities of a powerful tool for ensuring power plants comply with air pollution standards and provide real-time data on their emissions. *See infra* Section III.E. As noted above, this move followed a two-year exemption granted by the administration to roughly one-third of the industry, despite most of the exempted facilities already having demonstrated their ability to meet the stronger standards.

Rolling back clean air safeguards for hazardous air pollutants from numerous large industrial sectors comprising hundreds of major polluting facilities. Upon the launch of the administration's self-proclaimed 'biggest deregulatory action in U.S. history,' Administrator Zeldin announced his plan to roll back protections against hazardous air pollution for many other large industrial sectors in addition to power plants.

These sectors include: integrated iron and steel manufacturing, rubber tire manufacturing, synthetic organic chemical manufacturing industry, commercial sterilizers, lime manufacturing, coke ovens, copper smelting, and taconite ore processing.[41]

These important standards all were strengthened by EPA pursuant to the Congressional directive in the Clean Air Act to conduct a technology review of

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[39] U.S. EPA, National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units: Final Repeal, 91 Fed. Reg. 9,088 *et seq.* (Feb. 24, 2026).

[40] Maxine Joselow, *E.P.A. Weakens Limits on Mercury From Coal Plants*, N.Y. Times (Feb. 20, 2026), https://www.nytimes.com/2026/02/20/climate/epa-mercury-coal-plants.html ("Among adults, high levels of exposure to mercury can cause heart disease as well as severe damage to the brain and central nervous system. Among fetuses and babies, it can cause significant developmental delays, leading to lower I.Q. scores and impaired motor skills....Besides mercury, the change would relax limits on other heavy metals released by burning coal, including cadmium, chromium, lead and nickel. These other pollutants are linked to a range of health risks, including cancer, infertility and neurological damage.").

[41] U.S. EPA, News Release, *Trump EPA Announces Reconsideration of Air Rules Regulating American Energy, Manufacturing, Chemical Sectors (NESHAPs)* (Mar. 12, 2025), https://www.epa.gov/newsreleases/trump-epa-announces-reconsideration-air-rules-regulating-american-energy-manufacturing.

hazardous air pollution standards.[42] In all cases, EPA found that technology was available to better protect Americans. Administrator Zeldin and his EPA are moving to reverse that progress and allow increases in hazardous air pollution across the country.[43]

Letting industries increase hazardous air pollution and escape the law's safeguards against hazardous air pollution. Recognizing the especially dangerous, cancer-causing nature of hazardous air pollution, Congress directed EPA in the Clean Air Act to set standards reflecting the "maximum degree of reduction" of those emissions, including their "eliminat[ion]."[44] Flouting these statutory

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[42] 42 U.S.C. § 7412(d)(6).

[43] On March 6, 2026, Administrator Zeldin signed what appeared to be his first rule reducing air pollution beyond the regulatory status quo, in this case, a badly inadequate 20-year-old regulation for municipal waste combustors. This broke with the pattern of proposed and final rules under this administration that increase air pollution above regulatory baselines. U.S. EPA, Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Large Municipal Waste Combustors Voluntary Remand Response and Five-Year Review, https://www.epa.gov/system/files/documents/2026-03/large-municipal-waste-combustors-final-rule-prepub_0.pdf; *see also supra* note 2. Nonetheless, the final rule represents a substantial retreat from the stronger proposed rulemaking by the prior administration. Consistent with this administration's harmful PFAS "forever" chemical policies elsewhere, the final EPA rule refuses to regulate or monitor PFAS from waste combustors. *Id.*

EPA in 2024 had projected that the stronger proposed rule abandoned by Administrator Zeldin would deliver *net* health benefits valued at up to *$14 billion* over 20 years, due to reductions in particulate matter and ozone alone. *See* U.S. EPA, Regulatory Impact Analysis for the Proposed Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Large Municipal Waste Combustors 1-13 (Jan. 2024), https://www.epa.gov/system/files/documents/2024-01/ria_lmwc_proposal_20240109_formatted.pdf. The final rule signed by Administrator Zeldin projected compliance costs to industry of approximately $210 million over a 19-year period, and … *no* net benefits, indeed no valued benefits at all to Americans, based on the administration's new policy to assign zero value to ozone and $PM_{2.5}$ reductions and their associated health benefits. *See* U.S. EPA, Fact Sheet: Final Rule: Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Large Municipal Waste Combustors, https://www.epa.gov/system/files/documents/2026-03/factsheet_lmwc_final-rule.pdf; *see also* U.S. EPA, Regulatory Impact Analysis for the Final Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Large Municipal Waste Combustors 0-10 (Mar. 2026), https://www.epa.gov/system/files/documents/2026-03/lmwc_ria_final_2026-03.pdf ($0 benefits from NO_X reductions); *see also infra* Section III.E. In this way, EPA masked the harmful consequences and the foregone health benefits (up to $14 billion) of Administrator Zeldin's retreat from the stronger 2024 proposal; instead, this EPA calculated only the $11 million annual industry compliance costs. *Id.*

[44] 42 U.S.C. § 7412(d)(2).

commands and other provisions of the Act, this EPA is fighting in court to let industrial facilities across the country *increase* their hazardous air pollution above the levels achieved by the maximum reductions or elimination of emissions.[45] Instead, EPA wants to let these facilities escape the Clean Air Act's hazardous air pollution standards altogether, including the emissions limits, control requirements, monitoring, recordkeeping, reporting, and even the law's operating permit program.[46] EPA does not dispute that this exemption would allow a previously regulated industrial facility to increase highly toxic air pollution by over 49,000 pounds, where the toxicity of such air pollution is measured at tiny fractions of an ounce or less. EPA does not contest that there is nothing *preventing* facilities from increasing hazardous air pollution above levels achieved by maximum reductions in or the elimination of emissions. Instead, EPA responds drily that it does not think facilities will increase emissions.[47]

C. Increasing Smog and Soot Pollution

Denying Americans the right to safe health standards for tiny soot pollution means polluting industries will be allowed to increase that deadly pollution. One clear result of Administrator Zeldin's plan to abolish the safer health standard for tiny soot pollution, *supra* Section III.A, is that industrial facilities and motor vehicles will be permitted to emit more of that dangerous air pollution rather than less. EPA's responsibility to establish national air-quality health standards that sufficiently protect Americans must be followed by EPA and states developing regulations and cleanup plans requiring industries to reduce fine particle pollution to safe levels everywhere in the country. Because Administration Zeldin wants to reinstate an unsafe health standard for deadly fine particles, those pollution reductions would not happen and, indeed, soot pollution would be allowed to increase.

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[45] Consider a facility complying with an EPA hazardous air pollution rule that reduced its emissions from 50,000 pounds per year to 1,000 pounds per year by using pollution control equipment to meet the emissions limits in the rule. Under EPA's rollback rulemaking, however, this same facility now can *increase* its hazardous air pollution emissions from 1,000 pounds per year to 49,900 pounds per year, by turning off or turning down the pollution control equipment. The rollback rule now allows this facility to escape the original hazardous air pollution rule, including its emissions limits, pollution control requirements, monitoring, recordkeeping and reporting requirements. The facility also is now eligible to escape the Clean Air Act's operating permit program. The EPA rollback rule allows these harms to occur across the country.

[46] *See generally* Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act, 85 Fed. Reg. 73,854 (Nov. 19, 2020).

[47] *Id.* at 73,857.

Abolishing required smog and soot air pollution controls that protect national parks and wilderness areas from regional haze. Congress has set "as a national goal" clearing the nation's parks and wilderness areas of human-caused haze pollution and returning these areas to their natural state.[48] Accordingly, the Clean Air Act requires state haze plans enforced by EPA that must begin with a determination of the emission reductions "necessary to make reasonable progress" in "any" Class I area where pollution from within the state "may reasonably be anticipated to cause or contribute to any impairment of visibility."[49] And yet, the National Parks and Recreation Association reports that in the United States, "98% of national parks suffer from hazy skies, and on average, park visitors miss out on 50 miles of scenery because of haze pollution—a distance equal to the length of Rhode Island."[50]

This EPA is making hazy skies at national parks worse, not better. EPA has rubber-stamped a series of do-nothing state haze plans that require no pollution control measures at all for any source to ensure reasonable progress.[51] These states and EPA are foregoing available, affordable pollution controls and improvements at existing control systems that would deliver significant pollution reductions. In doing so, this EPA is reversing prior agency disapprovals[52] of state haze plans that fail to comply with the Act and EPA's Regional Haze Rule. This administration's reversal is based on an extreme new policy and departure from EPA rules that allows states to require *zero* reductions in haze-causing pollution.[53] EPA's retreat will mean more fine particulate matter, more sulfur dioxide, and more nitrogen oxides emissions from fossil fuel combustion, which react in the atmosphere to form haze pollution that occurs many miles from national parks and surrounding communities.[54]

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[48] 42 U.S.C. § 7491(a)(1).
[49] *Id.* § 7491(b)(2); 40 C.F.R. § 51.308(f).
[50] Nat'l Parks Conservation Ass'n, *Reducing haze pollution to protect parks & communities*, https://www.npca.org/reports/regional-haze (last visited Mar. 9, 2026).
[51] *See, e.g.*, Air Plan Approval; West Virginia Regional Haze Implementation Plan for the Second Implementation Period, 90 Fed. Reg. 29,737 (Jul. 7, 2025).
[52] *See, e.g.*, Air Plan Disapproval; West Virginia; Regional Haze State Implementation Plan for the Second Implementation Period, 90 Fed. Reg. 6,932, 6,951 (proposed Jan. 21, 2025) (EPA disapproval of inadequate, unlawful West Virginia haze plan).
[53] *See generally* Air Plan Approval; West Virginia; Regional Haze State Implementation Plan for the Second Implementation Period, 90 Fed. Reg. 16,478, 16,483 (proposed Apr. 18, 2025).
[54] *See, e.g.*, Protection of Visibility: Amendments to Requirements for State Plans, 82 Fed. Reg. 3,078, 3,093 (Jan. 10, 2017).

Letting dirtier industrial facilities increase smog and soot in communities and evade air pollution controls and pollution offsets. This EPA is fighting in court to roll back air pollution permitting safeguards and let large industrial polluters increase harmful smog, soot, sulfur dioxide and lead emissions by significant amounts into U.S. communities while evading modern air pollution controls and pollution offsets. EPA's legal argument is rooted in the absurd position that these significant emissions increases are not … "increases." In that litigation, EPA does not contest that its rollback rule would allow significant increases in real-world pollution that bypass pollution controls and pollution offsets, following a source-wide assessment of all emissions changes at a facility.[55] And EPA does not dispute the rule consequently permits industrial changes that can violate air-quality health standards to proceed without prior review by regulators and the public. This rollback tramples on the national health standards that a unanimous Supreme Court has recognized to be the very heart of the Clean Air Act.[56]

Failing to protect Americans from dangerous interstate smog and soot pollution: Downwind states like those in the Northeast and Mid-Atlantic need active leadership by EPA and strong federal safeguards to protect them from harmful smog and soot pollution that travels from upwind states in the Midwest and Southeast. This interstate air pollution causes or contributes to unsafe air in the downwind states. Congress understood that federal measures by EPA are needed since the downwind states have no jurisdiction over the pollution sources in upwind states.

EPA under the current administration has proposed steps that effectively render the Clean Air Act's 'good neighbor' program a dead letter—adopting a worse test to

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[55] Indeed, in the lawsuit, this EPA does not contest that its rule would allow an existing industrial facility to add a new methane gas boiler that increases regulated air pollution by many hundreds of tons—and claim that the facility is not even "increasing" air pollution, because the operator says it will shut down a coal boiler already emitting many hundreds of tons *five years later*. Mind you, during this five-year period, the two concurrently operating boilers will have *doubled* harmful emissions into the community from boiler operation. This EPA says that is not an emissions "increase." The Clean Air Act thresholds for an entirely new, major industrial facility are 250 tons per year, 100 tons per year, or even less in areas suffering unsafe air quality. *See* 42 U.S.C. §§ 7475(a), 7479(1) & 7503. So, this facility will have added the equivalent of a brand new, second major facility's emissions into the surrounding community—and this EPA says that is not an emissions "increase." Accordingly, in EPA's view, the new methane gas boiler can escape *any* air pollution controls; escape offsetting pollution measures in areas already suffering unsafe air quality; and the plans for the new methane gas boiler need not even be reported to the public. *See generally Env'tl Def. Fund v. U.S. EPA*, No. 18-1149 (D.C. Cir.).

[56] *See generally Whitman v. Am. Trucking Ass'ns, Inc.*, 531 U.S. 457 (2001).

determine if upwind states' emissions are linked to pollution problems in downwind states; proposing to approve eight inadequate state implementation plans (SIPs) previously disapproved by EPA; and refusing to finalize earlier proposed "corrections" of two additional SIPs.[57] Indeed, none of the state plans that EPA now proposes to rubber-stamp require *any* additional steps to reduce smog-forming air pollution. Instead, EPA leaves downwind states to suffer and grapple with harmful air pollution created within their own borders *and* pollution carried to those borders from upwind pollution sources. In the process, of course, EPA allows these upwind industrial sources to remain dirtier to the detriment of Americans in downwind and upwind states, alike.

Allowing dangerous increases of sulfur dioxide emissions. Newly released data by the EPA indicates that air pollution from coal-burning power plants rose significantly last year, with those plants that were given a presidential exemption, *see supra* Section III.B., emitting on average almost twice as much as their counterparts that received no exemption.[58] NRDC analysts reviewed EPA's new data, and determined that:

> "Carbon dioxide emissions rose by 3.9 percent, nitrogen oxide emissions by 7.4 percent, and sulfur dioxide emissions by [] 18.3 percent between 2024 and 2025. For context: **While power generation from coal was up 11 percent, the sulfur dioxide emissions from those coal plants rose by more than 18 percent.**
>
> **[T]he 18 percent increase is the second-largest increase in sulfur dioxide emissions since the EPA started publishing this data 30 years ago.**"[59]

While these numbers are shocking in themselves, the power plants that received presidential exemptions from EPA's Mercury and Air Toxics standards saw an even bigger increase in their emissions:

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[57] Interstate Transport Plan Review for the 2015 Ozone NAAQS, 91 Fed. Reg. 4,026 (proposed Jan. 30, 2026). Remarkably, the proposal even invites comment on adopting a test that is *twice* as lax as the already worse test used in the proposal. *Id.* at 4034 (noting wanly that the even more lax test would capture "notably less [upwind contribution] at most receptors than the amount captured with [the proposed lax test], and therefore emission reductions from states linked at that higher threshold may be insufficient to address collective upwind state contribution to downwind air quality problems.")

[58] Amanda Levin, *Coal Pollution Spikes After Trump's Free Pass to Pollute*, NRDC (Mar. 5, 2026), https://www.nrdc.org/media/coal-pollution-spikes-after-trumps-free-pass-pollute.

[59] *Id.* (emphasis in original).

> "Overall, the 71 plants given exemptions [by President Trump] saw their sulfur dioxide pollution go up by **24 percent**, nearly twice the rate of that of other coal plants.
>
> The six Texas power plants that received presidential exemptions collectively increased their sulfur dioxide emissions last year by 48 percent (compared to 2024), while the rest of the state's power plants actually saw their overall sulfur dioxide emissions decline in 2025.
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> The spike in emissions is due to two reasons: The plants ran more hours than they had in past years, and the power they produced was dirtier because they either were not running their pollution controls, running them less, or burning dirtier coal."[60]

The total sulfur dioxide pollution from just the six exempted Texas plants contributed to 667 premature deaths just last year, using EPA analytic tools and NRDC's analysis.[61]

These data are some of the first that we have from EPA on the emissions implications of its deregulatory agenda so far, and the results are chilling. This analysis looks at just one of the myriad rollbacks described in today's testimony. Each of the rollbacks undertaken by this EPA and outlined here has real world, damaging pollution impacts—and real-world consequences like asthma, heart disease, and even death.

D. Increasing Climate-Changing Air Pollution

Pretending climate change is a hoax and allowing more air pollution. This EPA and Administrator Zeldin recently repealed the core determination by the agency dating to 2009 that climate change endangers our health and welfare.[62] This marks the biggest attack ever on federal authority to tackle the climate crisis. Nearly 20 years after the Supreme Court confirmed EPA's authority to act, the

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[60] *Id.*

[61] NRDC, Press Release, *Coal Pollution Spiked After Trump Administration's "Free Pass to Pollute,"* (Feb. 26, 2026), https://www.nrdc.org/press-releases/coal-pollution-spiked-after-trump-administrations-free-pass-pollute.

[62] Rescission of the Greenhouse Gas Endangerment Finding and Motor Vehicle Greenhouse Gas Emission Standards Under the Clean Air Act, 91 Fed. Reg. 7,686 (Feb. 18, 2026).

administration is trying to bury its head in the sand and leave American families to deal with the consequences. Some of those consequences facing millions of Americans include stronger storms and hurricanes, more flooding, hotter heat waves, and more dangerous wildfires. With these will come more heat-related deaths, asthma attacks, and respiratory illnesses—and higher insurance costs and economic losses.

Abolishing limits on climate-changing carbon dioxide air pollution from fossil fuel power plants. This EPA has proposed to repeal a key set of standards designed to limit carbon emissions from new and existing fossil fuel power plants.[63] The proposals would eliminate standards for carbon pollution—some of strongest national actions ever taken to curb climate pollution from the power sector, which is the second-largest source of greenhouse gas emissions in the United States. Repealing the standards would hand a free pass to some of the country's worst polluters, accelerating climate change and prolonging reliance on heavily polluting fossil fuels.

Abolishing limits on climate-changing methane and air pollution from oil and gas operations. This EPA has delayed compliance deadlines[64] for oil and gas operations' methane limits until January 2027 (an additional 10 months)—presumably in order to buy themselves time to weaken or abolish those limits, entirely. "The decision pushes back critical clean air protections regarding methane, a highly potent greenhouse gas with 80 times the heat-trapping potential of carbon dioxide in the first 20 years post-emission. Oil and gas operations are the largest source of methane production in the country, and delaying these safeguards will further damage Americans' health and worsen the effects of climate change."[65]

E. Hiding the Truth

Refusing to tell Americans that they live in areas with unsafe soot. In February, this EPA missed and thereby violated the Clean Air Act deadline[66] to alert Americans

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[63] Repeal of Greenhouse Gas Emissions Standards for Fossil Fuel-Fired Electric Generating Units, 90 Fed. Reg. 25,752 (proposed June 17, 2025).
[64] U.S. EPA, 2025 Interim Final Rule to Extend Compliance Deadlines, https://www.epa.gov/controlling-air-pollution-oil-and-natural-gas-operations/2025-interim-final-rule-extend-compliance (last updated Dec. 4, 2025).
[65] NRDC, *White House Watch: Tracking Attacks on Our Environment & Health* (Mar. 5, 2026), https://www.nrdc.org/resources/white-house-watch-tracking-attacks-our-environment-health.
[66] *See* 42 U.S.C. § 7407(d)(1)(B) & (d)(2).

whether they live in areas that fail to meet the strengthened 2024 national air quality health standard for tiny particle pollution, or soot. The obligation to alert Americans marks the first step toward bringing dangerous soot pollution levels down into compliance with health-based standards, which the EPA itself projected would save thousands of lives annually. EPA's reason for this refusal is even more reckless: because Administrator Zeldin wants to *abolish* the more health-protective annual health standard for fine particulate matter pollution that EPA determined will save lives and improve public health. *See supra* Section III.A.

Refusing to value human health benefits from reducing dangerous air pollution and assigning those wide-ranging, massive benefits, $0—while continuing to count and bias industrial compliance costs. In January, this EPA abruptly stopped accounting for the benefit of saving lives as it dismantles limits on dangerous smog and soot pollution. Buried in accompanying materials for a final rollback rule on gas turbines, EPA announced it was reversing course on a practice it has followed for 45 years: this administration's EPA will no longer be "monetizing benefits from $PM_{2.5}$ and ozone" pollution reductions. This means EPA will stop valuing the health benefits from clean air safeguards—including avoided deaths, strokes, heart and asthma attacks, bronchitis and more—and will assign those numerous, important benefits zero dollars in the cost-benefit analysis required by executive orders.[67] Instead, in its future analyses of the costs and benefits of air pollution controls, EPA announced that it will *only* consider the costs incurred by industry for cleaning up their own pollution – not the very real human benefits of clean air.

The EPA's mandate is to protect public health, not to ignore the science in order to eliminate clean air safeguards that save lives and improve health. By pretending real health benefits do not count, EPA wants to open the door for industry to pollute more through its rollbacks and simultaneously hide the harmful consequences of those rollbacks and worsened air pollution. Meanwhile, Americans will pay the price in asthma attacks, heart disease, and premature deaths—a price that this administration now says is zero.

For decades, EPA's own analyses have shown trillions of dollars of economic benefits from protecting public health and welfare under the Clean Air Act. *See infra* Section V. No prior EPA or administration has disputed this. These benefits came from strong health protections that vastly outweigh polluter compliance costs. While "different administrations have used different estimates of the

[67] New Source Performance Standards Review for Stationary Combustion Turbines and Stationary Gas Turbines, 91 Fed. Reg. 1910, 1964 (Jan. 15, 2026).

monetary value of a human life in cost-benefit analyses[,]… until now, no administration has counted it as zero."[68]

Abolishing monitoring for climate-changing air pollution: The administration is keeping data on companies' climate-changing air pollution hidden from the public,[69] while simultaneously taking steps to repeal the pollution-reporting program entirely. The current administration does not want Americans to know which companies contribute to the increasing risks of heat waves, storms, drought, and floods—impacts that millions are suffering each year.

Abolishing monitoring for toxic soot pollution from coal-burning power plants. This EPA abolished the requirement for all coal-burning power plant equipment that emits toxic soot air pollution (including lead and other heavy metals that cause cancer) to operate continuous emissions monitors to alert communities and regulators what the plants' toxic emissions are and whether they are in compliance. The Zeldin EPA admitted that continuous monitors resulted in "more efficient pollution abatement and increased transparency" of emissions but said that they "no longer believes that those advantages outweigh the increased cost" of continuous monitors.[70] And what are those increased costs, according to EPA? $2.9 million per year *for the entire universe of U.S. companies that generate electricity from coal.*[71] The total operating revenue of just U.S. investor-owned electric companies in 2024 was $403 billion.[72]

What is that added cost for a continuous monitor at each piece of emitting equipment at an individual power plant? $14,000 per year—a shocking figure buried in the fine print of EPA's own rollback rulemaking.[73] Operators for U.S.

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[68] Maxine Joselow, *E.P.A. to Stop Considering Lives Saved When Setting Rules on Air Pollution*, N.Y. Times (Jan. 12, 2026), https://www.nytimes.com/2026/01/12/climate/trump-epa-air-pollution.html.

[69] *See* Extending the Reporting Deadline Under the Greenhouse Gas Reporting Rule for 2025, 91 Fed. Reg. 9,712 (Feb. 27, 2026).

[70] National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units: Final Repeal,91 Fed. Reg. 9,088, 9,102 (Feb. 24, 2026).

[71] *Id.*

[72] *See* Edison Electric Institute, *Industry Data: Overview*, https://www.eei.org/en/resources-and-media/industry-data#:~:text=Projected%20Transmission%20Investment-,Financial,Hardening%2C%20and%20Resilience%20(AHR) (last visited on Mar. 9, 2026).

[73] *See* U.S. EPA, Regulatory Impact Analysis for the Final Repeal of Amendments to National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units 2-11 (Feb. 2026), https://www.epa.gov/system/files/documents/2026-02/ria-mats-final-repeal-of-amendments-2026-02.pdf.

power plants that burn coal spend $1.5 billion on coal in just one month.[74] But this administration's EPA and Administrator Zeldin say that $1,167 per month costs too much to disclose to Americans the amounts of toxic emissions being released into U.S. communities and too much to improve pollution control performance and compliance.

F. **Pro-Pollution Federalism**

Rewarding states that roll back protections, punishing states that want to better protect their residents. This EPA has blocked Colorado's plan to cut coal-burning power plant air pollution that drives regional haze under the Clean Air Act's visibility program. "The state's plan includes retirement deadlines for coal plants that several utilities voluntarily proposed and asked the state to include in its plan. The plan was broadly supported by the state, utilities, industry, and environmental groups."[75] Unable to identify any authority in the Clean Air Act itself for the disapproval, EPA took the extraordinary desperate step of invoking the Takings Clause of the 5th Amendment to the U.S. Constitution to justify disapproval.[76]

At the same time, as noted above, EPA has proposed to approve eight inadequate state implementation plans (SIPs) for interstate air pollution that the agency previously disapproved, while refusing to finalize earlier proposed "correction" of two additional SIPs.[77] None of the state plans that EPA now proposes to rubber-stamp require *any* additional steps to reduce smog-forming air pollution. This administration's actions show that federalism will be "cooperative" when a state

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[74] *See* U.S. Energy Info. Admin., *Summary Statistics: Receipts and Cost of Fossil Fuels for the Electric Power Industry by Sector, Physical Units, 2025 and 2024*, https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=table_es2a (last visited Mar. 9, 2026).

[75] Nat'l Parks & Conservation Ass'n, *EPA Rejects Colorado's Regional Haze Plan, Including Coal Plant Retirement Dates* (Jan. 12, 2026), https://www.npca.org/articles/11282-epa-rejects-colorado-s-regional-haze-plan-including-coal-plant-retirement.

[76] Air Plan Disapproval; Colorado; Regional Haze Plan for the Second Implementation Period, 91 Fed. Reg, 3,048, 3,050 *et seq.* (Jan. 26, 2026).

[77] *See, e.g.*, Interstate Transport Plan Review for the 2015 Ozone NAAQS, 91 Fed. Reg. 4,026 (proposed Jan. 30, 2026). Remarkably, the proposal even invites comment on adopting a test that is *twice* as lax as the already worse test used in the proposal. *Id.* at 4034 (noting wanly that the even more lax test would capture "notably less [upwind contribution] at most receptors than the amount captured with [the proposed lax test], and therefore emission reductions from states linked at that higher threshold may be insufficient to address collective upwind state contribution to downwind air quality problems.")

rolls back safeguards and increases air pollution, not when a state like Colorado wants to better protect people by reining in pollution from coal-fired power plants and other industrial sources.

IV. EPA's "500 Environmental Wins": Failing to Protect Air Quality, Failing to Mention Sweeping, Reckless Rollbacks of Clean Air Safeguards.

In January 2026, this EPA published a list of "200 newly announced accomplishments" as part of a public relations campaign that the agency calls "500 Environmental Wins During President Trump's First Year Back in the White House."[78] What's most remarkable about this list, insofar as air quality is concerned, is the near-total absence of actual EPA regulatory steps to cut air pollution of any kind by any amount.

Of these 200 supposed 'environmental wins,' about 35 concern air pollution and the Clean Air Act. Six were actual rollbacks of stronger air pollution controls or approvals of state exemptions from pollution controls. Not environmental wins. Six were routine monitoring by EPA regional offices. Not exactly wins.

Eleven items on the list consisted of routine bureaucratic approvals by EPA regions of state plans. Note that some of these, too, were quiet rollbacks by approving more lax pollution controls. Not wins. There was one tiny grant issued.

There were two enforcement settlements for very modest amounts. There were three bigger air settlements. Note that settlement of these enforcement cases almost certainly concerned cases begun by EPA under the previous administration, because of the length of time it takes to investigate, develop, file, negotiate and settle cases. So, let us call these cases wins, but probably not because EPA under the current administration initiated the investigations and cases.

This EPA awarded itself 'environmental wins' for issuing a permit on tribal land, conducting 'air permitting review' in Puerto Rico, and conducting 'Air Quality Flag Program' outreach to over 300 students in the agency's Region VIII.

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[78] U.S. EPA, News Release, *EPA Delivers 500 Environmental Wins During President Trump's First Year Back in the White House* (Jan. 20, 2026), https://www.epa.gov/newsreleases/epa-delivers-500-environmental-wins-during-president-trumps-first-year-back-white.

Finally, in the biggest category of activity, the EPA list trumpets 'environmental wins' from conducting inspections in the EPA regions. Traditionally, this has been called part of EPA's job. Not 'environmental wins,' in the absence of any information about improved pollution control practices or better monitoring or pollution reductions. Did these inspections cut air pollution? EPA does not say. EPA does not know.

What else is missing from this list of 200 so-called 'environmental wins' by this EPA? There is not even one rulemaking proposal or final rule signed by EPA Administrator Lee Zeldin that reduces even one additional ounce of any kind of air pollution. Ponder the defining significance of that reality, not to mention its sheer improbability.

Also missing? The more than a dozen actions by this EPA and Administrator Zeldin under the Clean Air Act that will increase harmful air pollution by staggering amounts: many millions of tons of climate-changing carbon and methane pollution; tens of thousands of tons of smog and soot; thousands of tons of the most hazardous air pollutants, from brain poisons like lead & mercury, to acid gases and cancer-causing substances like benzene, asbestos, nickel and formaldehyde. Unsurprisingly, the list also omits every other harmful Clean Air Act rollback and attack on clean air safeguards mentioned in this testimony.

A recent report by the Center for American Progress detailed how EPA policies under Administrator Zeldin and this administration "would allow corporate polluters to emit more toxins and chemicals, exposing more than 2 million kids to pollutants that increase the likelihood of lifelong health concerns—such as asthma, autism, ADHD, and cancer—while undercutting the administration's own 'Make America Healthy Again' agenda."[79] In response, an EPA spokesperson ignored the report's content and simply dubbed it, "fake news."[80]

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[79] Ctr. for Am. Progress, *How the Trump Administration's Embrace of Oil, Gas, and Chemical Industry Interests Will Endanger Children's Health* (Feb. 4, 2026), https://www.americanprogress.org/article/how-the-trump-administrations-embrace-of-oil-gas-and-chemical-industry-interests-will-endanger-childrens-health/.

[80] Dharna Noor, *Trump's environmental rollbacks contradict RFK Jr's healthy America promise, report finds*, The Guardian (Feb. 4, 2026), https://www.theguardian.com/us-news/2026/feb/04/trump-environmental-rollbacks-maha-promise.

The EPA spokesperson went on to assert "[i]t's simply wrong to claim that EPA's actions will worsen air quality."[81]This is a facially preposterous claim in light of more than a dozen proposed or finalized rollbacks that even this administration has admitted will increase air pollution.[82] The spokesperson continued by arguing, "America's air is the cleanest it has been in decades" *Id.*

Apart from this being demonstrably untrue in key, concerning respects,[83] the EPA response (and non-response) is revealing: to the extent that air quality is safer and cleaner than in earlier decades, that is due to steps by the states and EPA under prior administrations, not this administration. It is due in part to progress that *this* administration is systematically, furiously reversing—by attacking & rolling back clean air protections in a self-described campaign of the biggest deregulation in U.S. history.[84] This administration and Administrator Zeldin are rolling back safeguards, increasing harmful air pollution, making Americans worse off and telling us to ignore what's happening before our eyes.

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[81] *Id.*

[82] *See, e.g.*, U.S. EPA, Regulatory Impact Analysis for the Final Repeal of Amendments to National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units ES-3-ES-4 (Feb. 2026), https://www.epa.gov/system/files/documents/2026-02/ria-mats-final-repeal-of-amendments-2026-02.pdf (acknowledging repeal will increase emissions of mercury and non-mercury hazardous air pollutant metals, including "antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, nickel, and selenium"); U.S. EPA, Projected Criteria, Air Toxics, and GHG Emissions Impacts for the "Rescission of the Greenhouse Gas Endangerment Finding and Motor Vehicle Greenhouse Gas Emission Standards Under the Clean Air Act" Final Rule tbls. 4, 8, and 12 (Feb. 18, 2026), Dkt. No. EPA-HQ-OAR-2025-0194-31055, https://www.regulations.gov/document/EPA-HQ-OAR-2025-0194-31055 (rolling back greenhouse gas standards (GHGs) for medium-duty & heavy-duty motor vehicles will mean that by CY 2055 the United States will see *annual* increases of 410 million metric tons of GHG emissions (CO_2e), 112,809 tons of smog-forming nitrogen oxides, 154,945 tons of smog-forming volatile organic compounds, and 2,081,697 tons of carbon monoxide)

[83] *See supra* note 58 and generally Section III.C (summarizing alarming increases in sulfur dioxide, nitrogen oxides, and carbon dioxide emissions in 2025 from power plants that burn coal and oil); Am. Lung Ass'n, *State of the Air 2025: Key Findings*, https://www.lung.org/research/sota/key-findings (last visited Mar. 9, 2026) ("46% of Americans—156.1 million people—are living in places that get failing grades for unhealthy levels of ozone or particle pollution. This is nearly 25 million more people breathing unhealthy air compared to last year's report, and more than in any other 'State of the Air' report in the last ten years").

[84] U.S. EPA, News Release, *EPA Launches Biggest Deregulatory Action in U.S. History* (Mar. 12, 2025), https://www.epa.gov/newsreleases/epa-launches-biggest-deregulatory-action-us-history.

V. Clean Air Progress Coupled with Strong Economic Growth

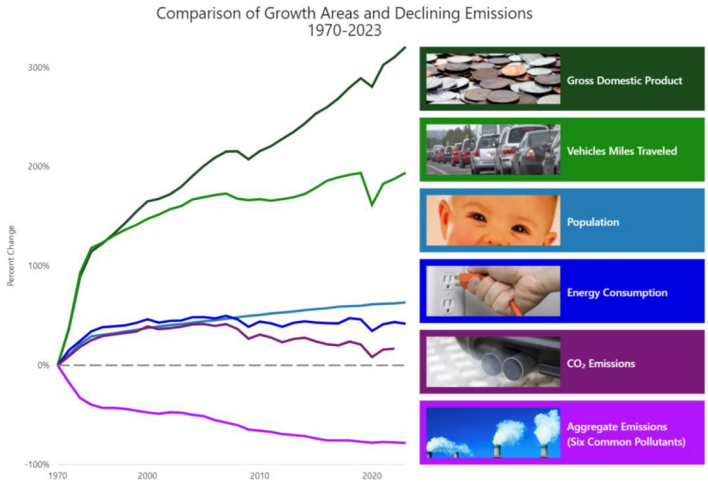
The Clean Air Act has been a remarkably successful and cost-effective law *because* its foundation is clean air standards based on health considerations and medical science alone. From 1980 to 2024, the "criteria air pollutants" that the Clean Air Act regulates have dropped by impressive amounts: 75% reductions in smog-forming nitrogen oxides, 61% reductions in smog forming volatile organic compounds (VOCs), and 63% reductions in direct particle pollution (PM_{10}).[85]

Percent Change in Emissions

Pollutant	1980 vs 2024	1990 vs 2024	2000 vs 2024	2010 vs 2024
Carbon Monoxide	-77	-71	-60	-30
Lead*	-99	-88	-78	-36
Nitrogen Oxides (NO_x)	-75	-73	-69	-55
Volatile Organic Compounds (VOC)	-61	-49	-30	-11
Direct PM_{10}	-63	-28	-26	-16
Direct $PM_{2.5}$	---	-29	-36	-13
Sulfur Dioxide	-94	-93	-90	-76

[85] *See* U.S. EPA, *Air Quality—National Summary*, https://www.epa.gov/air-trends/air-quality-national-summary (last updated Feb. 19, 2026).

That success in reducing harmful emissions and improving Americans' health has occurred during periods of impressive U.S. economic growth and steady population growth:



(Charts taken from https://www.epa.gov/air-trends/air-quality-national-summary)

In fact, the Clean Air Act, in Section 812, requires EPA to undertake regular studies and report on the impacts of the Act. In the first twenty years of the Clean Air Act, EPA estimated that the benefits of the Act exceeded its costs by approximately 42:1.[86] From 1990 to 2010, EPA undertook a prospective study, and, after an "extensive peer review during which independent panels of distinguished economists, scientists, and public health experts provided in-depth assessment and advice throughout the study's design, implementation, and documentation,"[87] the Agency concluded that: in 2010, the Amendments of 1990 will prevent 23,000 Americans from dying prematurely and avert over 1,700,000

[86] U.S. EPA, Benefits and Costs of the Clean Air Act, 1970 to 1990 56 (Oct. 1997), https://www.epa.gov/sites/default/files/2015-06/documents/contsetc.pdf.
[87] U.S. EPA, Press Release, *First Clean Air Act Benefits and Costs Prospective Study*, (Nov. 16, 1999), https://www.epa.gov/clean-air-act-overview/first-clean-air-act-benefits-and-costs-prospective-study-press-release.

incidences of asthma attacks and aggravation of chronic asthma.[88] In addition, in 2010, they will prevent 67,000 incidences of chronic and acute bronchitis, 91,000 occurrences of shortness of breath, 4,100,000 lost workdays, and 31,000,000 days in which Americans would have had to restrict activity due to air pollution related illness.[89] Plus, 22,000 respiratory-related hospital admissions would be averted, as well as 42,000 cardiovascular (heart and blood) hospital admissions, and 4,800 emergency room visits for asthma.[90]

The most recent prospective study, done in 2011, followed up on this work and examined the period from 2010 to 2020. EPA found that their "central benefits estimate exceeds costs by a factor of more than 30 to one, and the high benefits estimate exceeds costs by 90 times. Even the low benefits estimate exceeds costs by about three to one."[91] Looking forward to 2020, the report found that "[in] 2020, the Clean Air Act Amendments will prevent over 230,000 early deaths. Most of the economic benefits (about 85 percent) are attributable to reductions in premature mortality associated with reductions in ambient particulate matter."[92] Economists studying the Clean Air Act and its costs and benefits have reached another revealing conclusion that has proven true time and time again: "One defining feature of the research on the costs of the Clean Air Act is that predicted costs of the regulations are often higher than the costs that actually occur."[93]

There is still much work to be done, however. Over 156.1 million Americans live in areas that suffer unsafe levels of ozone (smog) pollution or fine particle pollution or both.[94] Over 88,000 Americans die prematurely every year due to just fine particle pollution, according to the renowned Global Burden of Disease

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[88] U.S. EPA, The Benefits and Costs of the Clean Air Act 1990 to 2010: EPA Report to Congress, (Nov. 1999), https://www.epa.gov/sites/default/files/2015-07/documents/fullrept.pdf.
[89] *Id.* at 61.
[90] *Id.*
[91] U.S. EPA, The Benefits and Costs of the Clean Air Act from 1990 to 2020 (Apr. 2011), https://www.epa.gov/sites/default/files/2015-07/documents/fullreport_rev_a.pdf.
[92] U.S. EPA, *Benefits and Costs of the Clean Air Act 1990-2020, the Second Prospective Study*, https://www.epa.gov/clean-air-act-overview/benefits-and-costs-clean-air-act-1990-2020-second-prospective-study (last updated May 15, 2025).
[93] Janet Currie & Reed Walker, *What Do Economists Have to Say about the Clean Air Act 50 Years after the Establishment of the Environmental Protection Agency?*, 33 J. of Econ. Persps. 3, 19 (2019), https://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.33.4.3.
[94] Am. Lung Ass'n, State of the Air 2025 Report 12 (2025), https://www.lung.org/research/sota/key-findings.

report.[95] Hazardous air pollution (regulated outside the National Ambient Air Quality Standards program) causes cancer, brain damage, birth defects, infertility, heart diseases and a wide range of other chronic conditions including premature death.[96]

Nonetheless, as my colleague Dr. Vijay Limaye notes:

> "One law – the Clean Air Act – has added nearly a year and a half to the average American lifespan and helps prevent more than 350,000 early deaths each year, making it the most successful public health safeguard in our nation's history. It keeps dangerous pollution out of the air we breathe by deploying a toolbox of science, policy, and enforcement to monitor, evaluate, and cut lethal pollution from coast to coast.
>
> Yes, that's right: Our lives will be, on average, 17 months longer all because of one law. The health gains from cleaning up soot and smog have delivered trillions of dollars in economic benefits to our nation.
>
> […][T]here is mountains of evidence confirming that efforts to clean up our air are sensible, moral, and hugely cost-effective, with the benefits outweighing costs by a factor of more than thirty to one. This is an issue that shouldn't even be up for debate."[97]

The Clean Air Act is and should continue to be a bright spot of bipartisanship and legislative achievement. It has transformed our nation's air and our nation's health, and Congress should commit to ensuring that trend continues, opposing efforts like those undertaken by this EPA to weaken and corrupt its safeguards.

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[95] Aaron J. Cohen *et al.*, *Estimates and 25-year trends of the global burden of disease attributable to ambient air pollution: an analysis of data from the Global Burden of Diseases Study 2015*, The Lancet 1914 (May 2017), https://pmc.ncbi.nlm.nih.gov/articles/PMC5439030/pdf/main.pdf.

[96] *See generally* U.S. EPA, *What are Hazardous Air Pollutants*, https://www.epa.gov/haps/what-are-hazardous-air-pollutants (last updated Nov. 5, 2025) ("Hazardous air pollutants, also known as air toxics, are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects."); 42 U.S.C. § 7412.

[97] Dr. Vijay Limaye, *Chokehold: The Trump administration's stealth plan to unleash poisonous air*, The New Lede (Mar. 4, 2026), https://www.thenewlede.org/2026/03/chokehold-the-trump-administrations-stealth-plan/.

Senate Committee on Environment and Public Works
hearing entitled, "*A Legislative Hearing to Examine S. 3135, the Cold Weather Diesel Reliability Act.*"
March 11, 2026
Questions for the Record for John Walke

Senator Whitehouse

1. Is it your impression, based on your own legal knowledge and after hearing and reading all applicable testimony, that congressional action is needed to provide relief for operators of diesel engines in extreme cold, when conditions are well below the freezing point of diesel emissions fluid?

   Response: Congressional action is not required to provide relief for operators of vehicles with diesel engines in extreme cold conditions. EPA already possess authority under the Clean Air Act to design standards for on-road and nonroad vehicles and engines that are necessary to address safety concerns, including those raised at the hearing relating to special operating conditions in Alaska, such as a combination of extreme cold temperatures well below the freezing point of diesel exhaust fluid (DEF) and very remote locations. *See* Clean Air Act sections 202(a)(3)(A)(i), 202(a)(4)(A) & (B), 213(a)(3) & 213(c).

   To the extent EPA determines action should be taken on these issues, the agency should proceed through a robust public rulemaking process to evaluate the scope and scale of cold-weather impacts and make targeted regulatory adjustments, as warranted by the factual record before the agency. Relying on a regulatory pathway, rather than unnecessary statutory amendments, preserves EPA's ability to adapt requirements as technologies evolve and develop a supporting factual record, subject to public input and a technical, fact-based record. Congressional action is unnecessary and could unintentionally constrain EPA's ability to update regulations in response to emerging technologies.

2. To the extent additional relief is necessary, do you believe that EPA is capable of providing needed relief under its existing Clean Air Act authority? What are some actions that EPA could take to provide relief?

   Response: Yes. As discussed in response to the prior question, EPA can modify the current regulations that regulate DEF, in order to address safety concerns, to the extent warranted by the factual record before the agency and in accordance with applicable law.

3. Section 4(a) of this bill would direct EPA to revise rules to provide relief "when ambient temperatures are at or below zero degrees Centigrade." Section 4(b) of the bill would

then provide a year-round exemption from any diesel exhaust fluid (DEF) system requirements, for all covered vehicles that are "primarily operated north of 59 degrees latitude" or "encounter[ ] operational or logistical conditions characterized by prolonged ambient temperatures" that "make the use of the [DEF] system impractical."

a. At what temperature does DEF freeze?

Response: The freezing point of DEF is 12 degrees F (approximately -11 degrees C). *See* https://www.api.org/products-and-services/diesel-exhaust-fluid/def-consumer-guidance/def-news/def-tips-to-keep-a-diesel-powered-vehicle-running-smoothly. The bill's authorization for "covered manufacturers to suspend inducement-related engine derate or shutdown functions that are triggered by emissions control system faults when ambient temperatures are at or below zero degrees Centigrade" would result in excess, avoidable emissions of harmful nitrogen oxides *above* the freezing point of DEF, namely between 13 degrees F (approximately -11 degrees C) and 32 degrees F (0 degrees C).

b. Is Anchorage above the 59th parallel? What are its average monthly temperatures? Do they fall above or below the temperature at which DEF freeze?

Response: Yes, Anchorage is above the 59th parallel at 61° 13' N. The following table highlights the average monthly temperature in Anchorage from 1970-2025 according to the National Weather Service. The table also indicates whether this average monthly temperature falls above or below the freezing temperature of DEF. [1]

Month	Monthly Mean Average Temperate (Degrees F)	Above or Below DEF Freeze Point
January	17	Above
February	20.5	Above
March	26.3	Above
April	36.8	Above
May	47.7	Above
June	55.4	Above
July	59.1	Above
August	57.1	Above
September	48.9	Above
October	35.9	Above
November	22.6	Above
December	18.5	Above

[1] https://www.weather.gov/afc/localclimate

c. By your reading, would "prolonged ambient temperatures" be limited to temperatures below the freezing point of DEF? Would they be limited to cold temperatures?

Response: No and no. I believe the best reading of "prolonged ambient temperatures" in S. 3135 (section 4(b)(1)(B)) is that the "year-round exemption from diesel exhaust flued requirements" is not limited to temperatures below the freezing point of DEF. Nor is the exemption even limited to cold temperatures. Three bill provisions inform this best reading. First, the "year-round exemption" language sweeps in days and locations in which conditions are not continuously or even temporarily below the freezing point of DEF. Second, the "prolonged ambient temperatures" language means non-continuous, intermittent periods in which temperatures do not fall below the freezing point of DEF nonetheless qualify for the exemption. Third, as discussed below, "prolonged" does not have any fixed meaning in context that would ensure future EPA regulations establish lengthy "prolonged" periods, thereby allowing the exemption to be even more expansive. The exemption could extend well beyond areas and conditions reflecting real-world, extreme cold temperatures.

d. What could be the cumulative effect of these three bases for exemption from pollution-control requirements?

Response: As discussed, the effect of these three bases for the exemption, individually and especially cumulatively, would be to expand the exemption significantly beyond temperatures, conditions and areas reflecting temperatures below the freezing point of DEF. This expansion would authorize the exemption in conditions well *above* the freezing temperature of DEF and in areas well beyond Alaska, including states that do not experience Alaska's temperatures routinely. The exemption would extend well beyond areas and conditions reflecting real-world, extreme cold temperatures.

4. To your awareness, do other statutes use the word "prolonged" to refer to a specific passage of time? If so, what does the word "prolonged" mean in those contexts? Does judicial precedent exist on this matter?

Response: To my knowledge, and following legal research, federal statutes do not use the word "prolonged" to denote a fixed or specific passage of time (*e.g.*, a set number of days or months or hours). Instead, Congress uses "prolonged" as a qualitative, context-dependent term, typically to describe conditions that are continuing, ongoing, or occurring for extended periods but not indefinitely. For example, in statutes addressing criminal torture, "prolonged" generally signals duration that is longer than ordinary or acceptable in context, but it is not paired with a numeric threshold. *See, e.g.*, 18 U.S.C. §

2340(2) ("'severe mental pain or suffering' means the prolonged mental harm caused by or resulting from...").

Judicial precedent reflects this same understanding. Courts interpreting "prolonged" do not assign it a fixed meaning, but instead evaluate it based on statutory purpose, surrounding language, and the nature of the harm or condition at issue. *See, e.g.*, *United States v. Belfast*, 611 F.3d 783 (11th Cir. 2010) (affirming a torture conviction and evaluating whether the evidence satisfied 18 U.S.C. § 2340(2)'s requirement of "prolonged mental harm" by considering the nature, severity, and duration of the victim's mental condition rather than tying "prolonged" to a specific temporal threshold).

This is also consistent with environmental statutes, where duration-based terms often describe ongoing or repeated exposure or effects rather than fixed timelines. For example, in *Appalachian Power Co. v. EPA*, 208 F.3d 1015 (D.C. Cir. 2000), a case concerning EPA's Clean Air Act "periodic monitoring" guidance under the Title V operating permit program, the D.C. Circuit examined the meaning of the statutory term, "periodic." The D.C. Circuit explained that "periodic monitoring" refers to monitoring that occurs "from time to time," noting that "if an 'applicable requirement imposes a one-time testing requirement, periodic monitoring is not satisfied ...,'" and expounding upon this only to say that one-time testing is not periodic. The court emphasized more broadly that statutes and agency regulations often use open-ended temporal terms that are elaborated through agency interpretation rather than fixed numerical definitions. Just like the term "periodic," "prolonged" is also an open-ended, indeterminate expression for time. Both terms depend necessarily on context and interpretation to give them more concrete meaning and constraints.

5. Do you have other concerns about any other sections or aspects of the bill text? If so, what are they?

Response: I am concerned with how the exemption from DEF for vehicles north of the 59th parallel would work in practice. For example, would manufacturers have to write code for vehicles sold in that jurisdiction? Would other more substantial changes to engine design be required? How would EPA ensure that vehicles sold for use north of the 59th parallel do not later end up further south, but without requisite controls?

Similarly, I'm concerned that these implementation problems may be even more severe for the year-round exemptions contemplated in Section 4(b)(1)(B), which could cover a much broader range of vehicles. Will this necessitate that manufacturers produce different types of trucks, depending on whether or not they qualify for the exemption? Even if the exemption could be implemented with code changes, how would EPA prevent this loophole from being exploited?

For example, if a truck changes its route so that the exemption should no longer apply, how would manufacturers change the code so that DEF is required again?

As described in further detail in response to question 6 below, the breadth and vagueness of the exemption in Section 4(b)(1)(B) raises significant concerns about unintended consequences. Congress should encourage EPA to publish the data it has collected on DEF to better understand the scope and scale of the issue before Congress takes any action to change EPA's authority.

6. Do you have questions about the intended meaning of any other sections of the bill text? If so, what are your questions?

   Responses: One of the biggest additional concerns with S. 3135 is raised by section 4(b)(1)(B)(ii) and the substantial expansion of the exemption from DEF requirements to "operational or logistical conditions characterized by prolonged ambient temperatures that ... otherwise make the use of the diesel exhaust fluid system impractical." There is no definition for "impractical." There is no limiting principle, contextual guidance to EPA, or agreed upon understanding for exactly what "impractical" means or does not mean. And yet it is the central legislative criterion for the bill's catch-all exemption.

   On one hand, EPA under a future administration could implement this provision through regulations that have nothing to do with cold temperatures, and nothing to do with DEF freezing. Indeed, one witness at the hearing already started to raise the prospect of dust in warm weather conditions or inconvenience to DEF users constituting impractical circumstances (or more generally under the bill) that would qualify for the bill's year-round exemption from DEF requirements and air pollution control measures. On the other hand, a future administration could implement this provision in such a manner that very little is considered "impractical." In either case, the bill affords EPA and a future reviewing court no additional information to inform the best reading of the meaning of "impractical."

   Congress should avoid using this vague, unworkable statutory term, particularly when creating such a broad exception. In light of other elements of the bill addressing S. 3135's legislative findings, and in light of section 4(b)(1)(B)(ii) substantially expanding the exemption beyond those legislative findings and beyond the design of the remainder of the bill, I would recommend removing section 4(b)(1)(B)(ii).

Senator CAPITO. Thank you, Mr. Walke.

I am going to recognize myself and begin the questioning portion. My first question is for Mr. Anderson. I think many of us, I guess you call us in the lower 48, Wyoming understands, but I do not think we really understand. I mean, I do not think we can fully grasp what cold weather really is. We think it is cold here, but obviously, as you so described, it is nothing like what we see.

We want to make sure that we have safe, efficient, reliable transportation for the people and goods in your State. What is different with respect to public safety between a diesel engine derate that might occur in Washington, DC, and one that could occur in the North Slope? You kind of alluded to this in your statement. How would you say that occurs differently in Alaska?

Mr. ANDERSON. Yes, thank you, Senator. I mean, I will use an example just from last night, when we got informed last night that the Dalton Highway, north of the Arctic Circle, closed again because of the powerful storm, wind, snow. It will be closed for probably well over 24 hours, just because that is the situation up there.

Our crews immediately go to work, and for us, that is mobilizing the equipment that we have. We can not bring equipment from other locations. It will take us 6, 12, even 18 hours if it is coming from Fairbanks.

The real difference here is just that what we have and the resources that we have to work with for an event that happens and the response that is expected of us, of course, the Dalton Highway is that lifeline for the oil and gas industry and for the North Slope. It is our support arterial for the Trans-Alaska Pipeline system.

There is a lot of pressure on us by industry, and just that public safety piece, when people are stuck, it is not just our folks working, but it is the people who are trying to get through and get these materials and supplies delivered. Then the people on the other end that are waiting for them, that all get delayed.

When we have equipment fail, there is a cascading impact across the State, across all of those industries, and the public.

Senator CAPITO. How often do you hear from, how frequently are you hearing from people that are concerned or directly impacted by this? Is it frequent?

Mr. ANDERSON. Yes, thank you, Senator. Absolutely. I mean, just in the past, as Senator Sullivan's Cold Weather Diesel Act has become more known in Alaska, we have had enormous amounts of people reach out. It hasn't just been, so, we have our statewide equipment fleet of just thousands of pieces of equipment, but we also have the commercial trucking industry, enormous outreach from those companies, and that discussion about, hey, this is really needed.

We are making significant investments into our older vehicles because we do not want to move forward with the newer vehicles. We have had fire departments come forward and say, this is a problem for when we are trying to do active response activities. The school bus companies have come forward. They are concerned, in rural Alaska, we are moving kids and it is 40 below, in those school buses. They have examples of when failures have occurred.

It really has been just across the board. Then the one, the Alaska Railroad reached out, the Alaska Railroad Board, as Commissioner,

DOT, they reached out and said, yes, this is impactful for our operations as well.

Senator CAPITO. Let me just, for somebody who is not as familiar with this issue, I am getting familiar, you mentioned school buses, emergency vehicles, your trucks. This can also be personal vehicles if they are powered by diesel, is that correct? Like a truck, F–150 or something like that?

Mr. ANDERSON. Senator, yes, that is correct. Then a lot of folks in Alaska, when they have small pieces of heavy equipment, I mean, I just had an example just from yesterday, somebody reached out to me and they had a cabin our in rural Alaska and they had a small piece of diesel equipment out there. Of course, the system failed. They had to fly someone in with a helicopter to fix it.

I mean, it is happening to people all across Alaska.

Senator CAPITO. Okay. Thank you.

Mr. Fornstrom, a farmer's livelihood obviously is closely tied, when we enumerated everything you do, I am like, I do not think this guy sleeps much. That is what you farmers have to do. You can not just do one thing. You have to do a lot of different things to keep—but anyway, you rely on a successful yield for each growing season. These yields are directly impacted, and you mentioned this in your statement, planting and harvesting and when that can occur.

Could you say a little bit about the potential consequences of a derate for farmers during these kinds of seasons, when you are planting or harvesting?

Mr. FORNSTROM. Yes, I had an example, and this came to mind. We always, farmers, we are always looking for a good deal. I was at an auction looking for a piece of equipment. The farmer that was selling the tractor, I asked him how good it was, and told him what I wanted to use the tractor for. He was like, well, you do not want this one. If it goes into the derate mode, you will not be able to run your grain cart like you are wanting to.

That just halts harvests to a stop.

Senator CAPITO. Right.

Mr. FORNSTROM. It is eliminating some of this equipment from different operations that farmers do not want to deal with. They are choosing not to buy newer equipment.

Senator CAPITO. Okay, thank you.

Senator Whitehouse?

Senator WHITEHOUSE. Thanks very much, Chairman.

I can not come to a hearing about the Clean Air Act, even on a very narrow topic, without having to try to reckon with the behavior of Trump's EPA. The general destruction and non-enforcement of the Clean Air Act by this EPA is harmful to Americans, not only in their health but in their pocketbooks, and is, in my view, completely inconsistent with things that Administrator Zeldin said to this committee while he was seeking confirmation.

The confirmed Zeldin and the seeking confirmation Zeldin are two very different creatures. I would ask unanimous consent that an article about the air pollution spikes that have resulted from his policies be admitted into the record.

Senator CAPITO. Without objection, so ordered.

[The referenced information follows:]

GREENWIRE

Air pollution spikes as Trump doubles down on coal power

EPA data shows pollution bumps that are among the largest in decades, just as the agency rolls back rules cracking down on pollution from coal-fired power plants.



BY: **SEAN REILLY** | 03/10/2026 01:39 PM EDT



Emissions rise from smokestacks at a coal-fired power plant Nov. 17, 2021, in Craig, Colorado.| Rick Bowmer/AP

GREENWIRE | Air pollution from coal-fired power plants spiked in 2025, a striking reversal of long-term progress in air quality as the Trump administration boosted coal use.

The emission increases were among the largest in at least a quarter-century, on a percentage basis, as the bulk of about 210 power plants registered increased sulfur dioxide and nitrogen oxide emissions, EPA numbers show.

Releases of sulfur dioxide, a lung-damaging compound key to acid rain formation, soared by more than 18 percent, from about 597,000 tons in 2024 to 705,000 tons in 2025, according to data compiled by POLITICO's E&E News.

During the same period, the coal-fired power sector's emissions of smog-forming nitrogen oxides swelled by some 12 percent, from 464,000 to 521,000 tons.

President Donald Trump and congressional Republicans have championed coal power, arguing that it's needed to ensure the United States' dominance in artificial intelligence. Trump made reviving the flagging coal industry a national priority, with his administration forcing plants to stay online past their scheduled retirement dates.

Research shows that pollution from the coal-burning plants poses "a serious risk to human health," said Dan Cohan, an environmental engineering professor at Rice University. While the industry's total emissions were still well below the levels of even a decade ago, continued increases would threaten one of the Clean Air Act's signature accomplishments.

"The fact that much more emissions were coming out of them last year was a worrisome sign," Cohan said.

At EPA, where Administrator Lee Zeldin last year pledged to ensure clean air for all Americans, spokesperson Brigit Hirsch did not address written questions asking how more pollution meshes with that promise or what factors might be behind the increases.

But Hirsch noted in an email steep drops in airborne concentrations of both sulfur dioxide and nitrogen oxides since 1990.

"Cherry-picking one year of data while ignoring the overall downward trend in emission levels is just misleading and meant to distract from the hundreds of environmental wins the Trump EPA has racked up over the past year-plus," Hirsch said.

But Cohan and other experts view burgeoning electricity demand as a driving force.

Amid a boom in the construction of power-hungry computing centers, even coal-fired units "are starting to see more generation," said James Staudt, president of Andover Technology Partners, a Massachusetts consulting firm.

'Total annual emissions increased'

Coal is by far the highest-polluting fossil fuel, and coal-fired generation grew by 13 percent last year, according to recently released U.S. Energy Information Administration data.

At PacifiCorp's Hunter Power Plant in Utah, for example, NOx emissions skyrocketed 78 percent last year from about 4,500 tons in 2024 to more than 8,000 tons. In an email, PacifiCorp spokesperson David Eskelsen attributed the jump to an increase in "utilization" at the roughly 1,600-megawatt plant.

Plants in Missouri and Texas led in emissions of nitrogen oxides in 2025

Top coal-fired power plants by nitrogen oxides emissions in 2025, in tons

Plant	State	2024	2025	Percent change
New Madrid	Missouri	10,473	14,335	37%
Limestone	Texas	5,064	8,710	72%
Fort Martin	West Virginia	5,001	8,640	73%
Hunter	Utah	4,510	8,033	78%
Ghent	Kentucky	6,988	8,027	15%
Thomas Hill	Missouri	5,871	7,990	36%
Labadie	Missouri	6,711	7,694	15%
Miami Fort	Ohio	6,263	7,604	21%
Colstrip	Montana	7,800	7,349	−6%
Scherer	Georgia	7,217	7,197	−0%

Source: EPA, POLITICO's E&E News reporting
Claudine Hellmuth/POLITICO

"Data shows that Hunter generated substantially more electricity in 2025 than in 2024, and total annual emissions increased accordingly," Eskelsen said, adding that the plant remains in compliance "with all applicable regulatory limits." He did not reply to a follow-up question asking whether the trend is so far continuing this year.

Under Trump, moreover, EPA is poised to dismantle existing regulations that would further curb coal plant pollution. While two years ago the Supreme Court temporarily blocked implementation of a Biden-era "good neighbor" plan aimed at curbing smog-forming emissions that cross state lines, the agency is now taking first steps toward a permanent rollback.

Also on the administration's chopping block is a tighter limit adopted during former President Joe Biden's term on airborne concentrations of the fine particulate matter often dubbed soot. Both SO2 and NOx can help spawn such particles. The Trump administration is now asking the U.S. Court of Appeals for the District of Columbia Circuit to throw out the stricter standard. A ruling is pending.

Coal-burning power plants have historically been a top source of the two pollutants. From 1995 through 2023, however, the sector's SO2 emissions plunged 96 percent while annual NOx releases fell 90 percent, according to the most recent numbers on an online "progress report."

Coal-fired power plants in the South and Midwest lead in sulfur dioxide emissions

Top coal-fired power plants by sulfur dioxide emissions, in tons

Plant	State	2024	2025	Percent change
Labadie	Missouri	32,699	38,322	17%
W.A. Parish	Texas	24,129	35,959	49%
Gerald Gentleman	Nebraska	20,517	22,311	9%
Gen. J.M. Gavin	Ohio	19,151	21,555	13%
Harrison	West Virginia	14,208	18,622	31%
Belle River	Michigan	15,934	18,216	14%
Limestone	Texas	4,518	17,272	282%
Independence	Arkansas	13,653	16,718	22%
Shawnee	Kentucky	12,551	15,605	24%
Cardinal	Ohio	12,073	13,270	10%

Source: EPA, POLITICO's E&E News reporting
Claudine Hellmuth/POLITICO

Both industry and environmental groups regularly tout those drops as a success story demonstrating that the United States can have cleaner air, economic growth and a dependable electric grid.

"I think that the long-term trend has shown that we've been able to cut pollution without hurting reliability," said Amanda Levin, director of policy analysis at the Natural Resources Defense Council.

In her own recent dissection of the data from EPA's Clean Air Markets program, Levin found that the overall growth in SO2 emissions last year was disproportionately higher among 71 plants granted presidential exemptions last year from other regulations issued during Biden's term that strengthened power sector limits on mercury and other toxic pollutants.

Those regulations, formally known as the Mercury and Air Toxics Standards and repealed last month, did not directly target releases of SO2 or NOx. Levin, however, saw the trend as evidence that the plants seeking exemptions were especially willing to take advantage of a "more permissive" regulatory environment.

In her email, Hirsch wrote that the standards had "little or nothing to do" with NOx or SO2 emissions and accused Levin's group of "a desperate attempt to drum up donations."

Before Trump's second term, EPA had routinely updated the emissions data for individual power plants in an online spreadsheet roughly every three months. The agency has since ended that tradition without explanation. For this story, E&E News extracted the plant numbers from the Clean Air Markets clearinghouse with the help of a former EPA staffer who was granted anonymity for privacy reasons.

For some individual plants, pollution spikes last year were well above the percentage increases for the coal-fired power sector as a whole, the numbers indicate. At NRG Energy's Limestone operation in East Texas, for example, SO2 releases almost quadrupled from about 4,500 tons to some 17,000 tons.

In an email, NRG spokesperson Erik Linden described the data as inaccurate, saying that an emissions monitoring system breakdown and EPA data substitution rules led to the plant "reporting more emissions than [were] actually emitted."

At Ameren's Labadie Energy Center in St. Louis, SO2 emissions climbed 17 percent last year, slightly below the industrywide total. Even so, the 38,300 tons in releases were the highest of any coal-fired power facility in the United States. The Labadie plant was also among the coal-fired power sector's top 10 sources of nitrogen oxides, with total emissions rising 15 percent to almost 7,700 tons.

In a statement, Craig Giesmann, director of environmental services for Ameren Missouri, did not answer written questions about the factors behind the added pollution last year, but said the Labadie operation continues to meet emissions requirements that "are fully protective of human health."

The plant is also "a critical asset" to St. Louis and the state of Missouri, Giesmann said. "Keeping the lights on is a job we take seriously, and so is our responsibility to the environment."

After reviewing the data, Peter Goode, an environmental engineer with the interdisciplinary environmental clinic at Washington University in St. Louis, said in an email that he believed the 2025 SO2 emissions increase stemmed from added plant operations.

For both 2024 and 2025, he added, the numbers “are still incredibly high."

Reach this reporter on Signal at SeanReilly.70.

UP NEXT IN **THIS EDITION OF GREENWIRE**

Louisiana nears deal with ConocoPhillips over coastal erosion

BY NIINA H. FARAH, LESLEY CLARK



→

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Senator WHITEHOUSE. Things as simple as not counting health harms, only counting industry costs and a cost-benefit analysis, that does not even make sense. EPA willingly goes there. I am happy to work with Senator Sullivan and Senator Lummis on a sensible solution to this.

It has to be founded in the recognition that this NOx pollution is actually dangerous. To over-permit NOx pollution from tailpipes is a harm of its own.

I hope we can work on it with that realization as a baseline.

I would also add that fossil fuel emissions have put us on the front edge of what I call the great climate insurance collapse, which is very real and very immediate in a great many States, where flooding and wildfire risks are destroying homeowners insurance markets. That cascades from homeowners insurance markets into mortgage markets, from mortgage markets into real estate markets, from real estate markets into the banking sector, and generally into recession.

Indeed, the former chief economist for Freddie Mac has predicted a 2008-style recession from this meltdown, based only on coastal property value crash, without even considering the wildfire risks that the west is now experiencing.

These warnings do not come from the environmental community. They come from the Fed, the Fed Chair, they come from Freddie Mac, their former chief economist. They come from The Economist magazine. They come from the International Financial Stability Board. They come from the board member of the biggest insurance company in the world, Allianz, and the CEO of the American insurance giant, AON. They come from the former risk chief of Goldman Sachs, they come from the former head of the Bank of England. They come from the Mortgage Bankers Association. They come in the form of an op-ed I wrote with Senator Sheehy.

We have to be real about this. While I look forward to working with my distinguished colleagues on solving this problem, to overlook all of that in the context of a hearing on the Clean Air Act is just more than I can bear.

Mr. Walke, you are from the NRDC. You published a comprehensive report in 2021, finding that the health-related costs of fossil fuel pollution are $820 billion a year out from Americans. Can you explain a little bit the conclusion that led to the $820 billion freeload for the fossil fuel industry and health harm to the American people?

Mr. WALKE. Yes, Senator, thank you. We looked at the direct health impacts that would flow from fossil fuel air pollution. That figure encompasses health hazards from cardiovascular disease, heart attacks, strokes, and overwhelmingly from about 107,000 premature deaths that are caused annually by fossil fuel pollution. That is using government figures for assigning costs to that. Before the EPA eliminated them, that is the figure that we came up with.

Senator WHITEHOUSE. I often cite the International Monetary Fund analysis of the effective subsidy for fossil fuel, not immediate cash subsidies through the tax code, but the subsidy being allowed to pollute for free, which even very conservative economists understand is bad economics. It violates the basic laws of the market economy. Their latest figure put it at $770 billion per year. That

seems to track pretty well with your $820 billion number, does not it?

Mr. WALKE. It doe, but I would add that there are different ways of subsidizing fossil fuels. This administration has just rolled back motor vehicle standards that will cause Americans to spend over $1 trillion in added gasoline costs. I just noticed in the newspaper this morning that gasoline prices had risen at the pump 17 percent just since the war was started in Iran.

These costs are additive. That does not even include the 800 and something billion figure that we found in direct health costs.

Senator WHITEHOUSE. One side's cost is the other side's revenue, and that is what they are interested in.

Thank you very much, Chairman.

Senator CAPITO. Thank you.

Senator Lummis?

Senator LUMMIS. Thank you, Madam Chairman.

This question is for Mr. Fornstrom and Mr. Anderson. You represent States that have cold weather but also have significant transportation industries. Have you or an employee or in the case of you, Mr. Fornstrom, a Farm Bureau member, ever been stranded in the cold due to an improperly functioning DEF system?

Mr. FORNSTROM. Thank you for that question. I personally have never been stranded. I do my best to not buy anything that has DEF in it. I do have to have some equipment that does have DEF. The big worry with that is, as you know, in Wyoming, with our ranching, as rural as it is, is that when these ranchers go out with this equipment and they are, in Wyoming we are famous for ground blizzards, where you can not see from me to you.

They feed their cattle a mile away from their house. If that equipment goes down because of a DEF problem, somebody is going to die. They are going to be frozen before they can make it back to the house. Those are real worries we have in Wyoming. Throughout the whole west.

Senator LUMMIS. Mr. Anderson?

Mr. ANDERSON. Thank you, Senator.

I am not an equipment operator, but I have been impacted. When we have had road closures, I have been impacted by road closures. A lot of times, in my role as commissioner, we are always looking at our performance as a department, and how quickly we can open those roads.

We have had situations where this is taking us longer than it normally does. When you dig in, it is because there has been equipment that has been downed by these DEF issues.

It is a real impact across the board from that perspective. I have been in the shops with the mechanics, and they have shown me the problems. This is real. It is a real impact, and it is having significant impacts to us.

Senator LUMMIS. Mr. Anderson, is there ever a case where there is plenty of DEF in the engine but the DEF system still malfunctions?

Mr. ANDERSON. Yes, Senator. There is, from my discussions with our mechanics, there is a multitude of factors and ways that these systems malfunction. With the engine derates, yes, that is typical. When our folks will be out in extreme temperatures, trying to keep

our roads open, and they can get stuck out 40, 50 miles from the nearest maintenance camp. Now they have a piece of equipment that can go five miles an hour. That causes a lot of disruption to our services.

Also, our equipment, you know, when we are out working in this cold, cold temperatures, things freeze. Equipment is not on all the time. SO if one of these systems and this fluid freezes, it crystallizes. That causes other problems within the system, to injectors within the tanks, just a multitude of factors that start causing reasons for malfunction.

It is not just limited to these derates. There are challenges where we just can not get the equipment started again.

Senator LUMMIS. Mr. Fornstrom, you mentioned that the mileage per gallon goes down when there is a DEF system installed. Does that mean that you are consuming more and polluting more because you are getting fewer miles per gallon?

Mr. FORNSTROM. Yes. I guess the background on that is, I have run trucks since the early 1990's. When we started with the trucks, equipment, horsepower size, all in the same weights, we could run between six, six and a half miles per gallon of diesel on those trucks. That was a pretty good mile per gallon for us.

As of late, if you talk to anybody who runs anything with that in it, they are hoping to get four miles per gallon. You are 50 percent higher at least, in the efficiency. I think the petroleum companies probably love that. I am not sure, as a consumer of that diesel fuel, at the prices they are now compared to what they were in the 1990's, it is putting a real pinch point on agriculture.

Senator LUMMIS. In one sense, the government, trying to avoid NOx emissions, is creating more emissions because they are driving down the mileage you can get on a gallon of diesel.

Mr. FORNSTROM. Emissions per gallon of diesel, for sure. For sure.

Senator LUMMIS. Well, my time is expired, Madam Chairman. The EPA under Obama knew, they knew, that DEF systems didn't work well and posed a risk to public safety. They mandated them anyway.

What we need to do is in some ways what Mr. Whitehouse described. We do need to remediate NOx emissions. We need to reduce them. There are ways to reduce them and still keep diesel engines running. That is what this bill is about.

Thanks, Mr. Sullivan. I yield back.

Senator CAPITO. Mr. Padilla?

Senator PADILLA. Thank you, Madam Chairman.

Listening intently to my colleagues on both sides of the aisle, I try to keep an open mind here. Let me share the lens with which I am approaching this conversation. Recognizing that the EPA recently rescinded Federal vehicle greenhouse gas emission standards, and last year Congress, this Senate, voted to rescind California's Clean Air Act waiver authority.

Together, those actions have significantly narrowed California's ability to protect our own communities, our own constituents, from vehicle emissions.

Now, one argument for this bill is that regions with unique operating conditions deserve flexibility from the Federal Government in

how they address emissions and emission requirements. That sounds common sense.

That argument cuts both ways. If we are being asked to consider cold weather States, whether or not they deserve flexibility to weaken emission requirements based on their unique conditions, Senator Sullivan, that is sort of what I am hearing as the basis for this proposal, then I am sure through the same logic California also deserves flexibility to meet its unique standards and air quality challenges.

My first question is for Mr. Walke. In your view, what are the public health consequences for States like California that have now lost both the Federal floor and their own authority to go even further?

Mr. WALKE. Thank you, Senator. It is well known that Southern California, especially, but really the whole State faces some of the most challenging smog problems in the United States, and those come overwhelmingly from motor vehicles that the Clean Air Act reserves to EPA, or California, with its special authority.

This administration has undermined that, as you noted. Has this body.

The emissions increases in NOx resulting from the rollback of the motor vehicle standards by this EPA rollback, so, power plant standards, the pollution spike from power plants, frankly, overwhelms the NOx increases that might occur from the type of engines that we are talking about today. I am kind of struggling with how to balance all that.

California is facing some of the worst of it from the rollbacks, especially the motor vehicles and the California waiver kind of weakening.

Senator PADILLA. I think it is a combination of just the size of the population, size of the economy, aging infrastructure, growing infrastructure, along with topography and weather patterns, that has resulted in—correct me if I am wrong, but the last I checked, the plurality of Americans living in non-attainment areas are the central, Southern California Air Quality Management District and the Central Valley.

Mr. WALKE. That is correct.

Senator PADILLA. Just those two parts of California combined, with the plurality of Americans living in non-attainment areas.

Mr. WALKE. That is correct.

Senator PADILLA. We talk about what the State has been historically, what they would like to do if the Federal Government allowed them to go further. Passenger vehicles is one thing, stationary sources, power plants is another. It is eras of Federal jurisdiction that are the biggest, last nuts to crack. Think locomotives. Technology is leading us quickly if we let those who innovate do so more aggressively but realistically, balancing our economic growth. That is just one example.

I would also remind ourselves, colleagues, that over the past year we have seen the EPA grant these exemptions from emissions and toxic pollution standards to a significant number of industrial facilities or sectors of the economy, often through mechanisms that bypass the normal notice and comment process. The bill before us

today would add a statutory exemption on top of that administrative process.

Mr. Walke, do you have any concerns that normalizing broad exemptions, even ones that seem targeted and reasonable on their face, could ultimately undermine the consistency and enforceability of the rules that everyone is supposed to be operating under, and thereby distorting markets?

Mr. WALKE. I do, Senator. I think there are better solutions than exemptions, statutory exemptions. I do want to emphasize that this exemption is not limited to Alaska. It is available to the entire United States. In fact, it is not even limited to cold temperature because of the way that the bill is worded, ambient air temperature, without regard to cold weather. That may be inadvertent, but that is what the bill says.

I think that there are solutions available through regulatory channels with greater technical expertise than I have, or that this body has. I encourage those to proceed. Thank you.

Senator PADILLA. Thank you very much. Thank you, Madam Chairman.

Senator CAPITO. Thank you, Senator.

Senator Sullivan?

Senator SULLIVAN. Thank you, Madam Chair. I want to thank Mr. Anderson in particular for his really excellent testimony.

I want to help you help me and my colleagues set the stage a little bit here. You are from Fairbanks. How cold was it this winter? In December, just December, it was really, really, really cold, wasn't it?

Mr. ANDERSON. Yes, Senator. We had temperatures below 30 below for several weeks. It was actually a, I believe it was a 50-year record for cold temperatures in Fairbanks.

Senator SULLIVAN. Yes. In Fairbanks, it gets cold, really cold. I used to live in Fairbanks. My wife is from Fairbanks.

That is consistent, too. I think the month of December had 25 below for most of the entire month, right?

Mr. ANDERSON. Yes, that is correct. Along with the darkness.

Senator SULLIVAN. Yes. The Haul Road, what we call the Haul Road, or the Dalton Highway, explain that a little bit. It is about 500 miles from Fairbanks to Prudhoe Bay, Deadhorse, correct?

Mr. ANDERSON. Yes, that is correct. Five hundred miles, it is a combination of some pavement but mostly gravel.

Senator SULLIVAN. Mostly gravel, right. It is not even paved.

Mr. ANDERSON. In the wintertime we actually ice it, so we put ice on top to keep it smoother.

Senator SULLIVAN. Those are the ice road truckers I was talking about?

Mr. ANDERSON. Those are the ice road truckers.

Senator SULLIVAN. Tough duty.

Mr. ANDERSON. Yes.

Senator SULIVAN. Dangerous duty.

Mr. ANDERSON. Absolutely.

Senator SULLIVAN. Without the DEF system.

Mr. ANDERSON. Absolutely.

Senator SULLIVAN. Then let's think, if you are north of the Yukon River, my wife and I, we go up to the Yukon every summer, so we

drive the Haul Road ourselves, but if you are north of the Yukon River, how many gas stations are there between north of the Yukon River and Deadhorse? In the winter.

Mr. ANDERSON. There is one gas station at a place called Coldfoot.

Senator SULLIVAN. That is about, Yukon River to Deadhorse is about 350 miles, is that what that is?

Mr. ANDERSON. That is about correct.

Senator SULLIVAN. There is one gas station.

Mr. ANDERSON. Absolutely.

Senator SULLIVAN. This is kind of the sense of the challenge. In the fact that it is the economic lifeline of Alaska, can you unpack that a little bit more again for the witnesses here? Why? What is up in Deadhorse?

Mr. ANDERSON. Yes, the Prudhoe Bay oil fields, that is, back in the 1960's, with the big oil finds in Alaska, the Trans-Alaska Pipeline, takes the oil, I think we are doing about 400,000 barrels per day now.

Senator SULLIVAN. Yes, we are turning that around now.

Mr. ANDERSON. Where it is going up fast. That has been super positive.

It really is, if you are in a lot of Alaska and the communities, I mean, the majority, that is what drives their economy, that is the revenue that drives our State government across the board. Even our permanent fund dividend, if you have heard of that, that has been generated from oil revenues based on the——

Senator SULLIVAN. The Country, especially now, needs that as well, right? We are producing oil in Alaska that Americans need.

Mr. ANDERSON. Absolutely.

Senator SULLIVAN. Big C. A lot of it goes to California, that is another whole topic.

Let me ask this question. I thought your statistics in your opening statement were kind of shocking to me. I mean, I have been focused on this issue for a long time. You said, and I quote now, "The internal maintenance data and field experience indicate that between 70 and 80 percent of the diesel engine maintenance issues encountered in the past 2 years as part of the Department of Transportation in Alaska are related to the DEF system."

Mr. ANDERSON. That is correct.

Senator SULLIVAN. How many pieces of equipment are we talking about? I mean, you have thousands of diesel equipment, do not you, in terms of trucks?

Mr. ANDERSON. Yes. The DOT in Alaska runs the State equipment fleet for the entire State of Alaska. It is thousands of pieces of equipment across the State.

Senator SULLIVAN. The 70 to 80 percent of your diesel challenges with that equipment relates to this problem?

Mr. ANDERSON. That is correct.

Senator SULLIVAN. The 10 percent of the department at any point has unavailable equipment because of that?

Mr. ANDERSON. That is correct.

Senator SULLIVAN. That is giant cost, just to the department, correct?

Mr. ANDERSON. Absolutely.

Senator SULLIVAN. Let me ask you, Mr. Fornstrom, you talked about costs too, to farmers. I am a big fan of America's farmers. You mentioned this idea that hey, a lot of times when commodity prices or farm prices are not as high as they need, your margins can be really, really low, right? To just be a farmer who can make ends meet.

What about, you mentioned briefly the cost of this for farmers. Is that something else that, it is not just huge cost to the Alaska Department of Transportation, but to farmers in Wyoming? Isn't this kind of impacting your ability to make a livelihood?

Mr. FORNSTROM. Yes, you know, you mentioned prices being low. Low would be great. The negative ones are the ones that hurt.

Senator SULLIVAN. Yes.

Mr. FORNSTROM. DEF, it adds to our cost of production. Everybody here knows that agriculture is a price taker. We can not add money to what we are charging for our wheat. You will take it and you will pay for it or you will not do it anymore. DEF is nothing more than just an add-on for expense.

Senator SULLIVAN. Thank you.

Madam Chair, we need to work on this. To my colleague, Senator Whitehouse, none of us are saying we should not do anything about NOx or SOx. We need to have regulations that actually are not one-size-fits-all that really penalize States like mine in a huge way. A reg written by lawyers in D.C. that do not have a clue about any of this stuff, not a clue.

That is not right. That is not the way the Federal Government is supposed to work, and we are going to fix it. Thank you.

Senator CAPITO. I look forward to working with you to do that.

Senator Ricketts?

Senator RICKETTS. Thank you very much, Madam Chairman. Thank you to our witnesses for coming to talk about this important issue.

Diesel engines are an important part for many vehicles, including in the agricultural industry. In States like Nebraska, where we experience cold, not as cold as Alaska, and highly variable weather, these systems face additional operational challenges.

Nebraska agriculture producers that emissions related issues, particularly with DEF, the DEF systems, account for a majority of their machinery repairs, sort of what my colleague from Alaska was just saying.

Major grievance is that when a DEF sensor fails or the system malfunctions, it often triggers limp mode, where a tractor or combine loses power and speed, causing critical delays during planting or harvesting.

During these seasons, especially, farm operations rely on narrow windows to be able to do the planting or harvesting. If equipment malfunctions and a tractor derates during those windows, farmers can miss critical planting or harvesting timelines, which can negatively affect the entire season's crop yield.

On top of failing engines, these failures can cost producers thousands of dollars in repairs and lost productivity.

This is also a major safety hazard, especially in bitter cold weather. Allowing manufacturers to suspend engine derate or shut

down functions that operate in cold provides targeted regulatory relief for farmers, truckers, and Nebraskans.

I applaud the Trump administration's EPA, who has recognized this challenge by publishing guidance that allows greater flexibility and longer warning periods before derate occurs.

Mr. Fornstrom, how does the EPA guidance and this legislation in tandem provide long-term regulatory relief needed for our agriculture and trucking industries?

Mr. FORNSTROM. Thank you for the question. We all know out in the rural parts of America that these regulations, the move around so much. This codification by the legislative body will be, it gives us a direction to head, at least. It takes away one of those questions that we will have, is when will it change and where will it go next.

Senator RICKETTS. Why is that important for farmers?

Mr. FORNSTROM. We think on terms of years, not next week. I mean, I plant a crop that I will harvest for the next 5 years. In those plannings, we need to know where things are going to be. It is just the planning process. We need to know.

Senator RICKETTS. Certainty is a really important thing?

Mr. FORNSTROM. It is super important.

Senator RICKETTS. In the trucking industry, these system failures have also caused serious safety risks. The Clean Air Act regulations were not intended to jeopardize human safety or mobility, as my colleague from Alaska was talking about. Ultimately, this legislation is about protecting lives while maintaining practical and workable standards.

Mr. Anderson and Mr. Fornstrom, can you speak to the safety and operational benefits of this legislation and how it will help address the challenges drivers and operators are currently facing?

Mr. FORNSTROM. I live on a stretch of highway called Interstate 80, goes right through the middle of your State.

Senator RICKETTS. Familiar with that.

Mr. FORNSTROM. In fact, I live on the other end of, I live right on the border. We travel Cheyenne to Kimball, Nebraska regularly.

On any given day, it does not matter if it is cold outside or hot outside, there will be one to a half a dozen trucks in about a 70-mile stretch and they are all parked alongside the road. I have asked the local mechanics, what is going on with all these trucks?

They say, most of the time, it is an emission issue. Derates will shut them down, put them on the side of the interstate. If you have ever stopped on the interstate, on I–80, and tried to get off the road far enough, you can not get far enough off the road.

Senator RICKETTS. Yes, it is dangerous.

Mr. FORNSTROM. It is dangerous.

Senator RICKETTS. You said that happens even in warm weather?

Mr. FORNSTROM. Oh, every day. Yes.

Senator RICKETTS. What are some of the other causes, then, of the emissions failures? We talked about the cold.

Mr. FORNSTROM. Well, that is not only a problem in the cold. It is a problem in the heat, also. It degrades in the heat.

Senator RICKETTS. Talk to me a little bit about that. When you add DEF, it actually can degrade in the heat? If you get warm temperatures—

Mr. FORNSTROM. Heat and sunlight.

Senator RICKETTS. Will that increase, then, is that an issue where the NOx emissions are increasing and that is what causes the shutdown? Or is it a systems problem with the emissions system somehow malfunctioning?

Mr. FORNSTROM. You know, I do not know exactly how that system works. I would assume, I mean, you hear all sorts of situations, whether it is a sensor, whether it is a broken tank, whether it is—I mean, these systems are, they are plastic tanks. Where we are from, the roads are not always smooth.

Senator RICKETTS. Right.

Mr. FORNSTROM. In the winter time, I guess everybody forgets that we shut these things off every so often. When you shut them off, that is when it freezes. Then it breaks the tank.

Senator RICKETTS. It expands the tank?

Mr. FORNSTROM. It is like 50 percent water. It expands the tank, breaks it, and now you are sitting with a piece of equipment with a broken tank, with no way for it to get the DEF.

Senator RICKETTS. Madam Chair, do you mind if I let Mr. Anderson just respond quickly?

Senator CAPITO. Yes.

Senator RICKETTS. Mr. Anderson, if you could just respond quickly to that as well.

Mr. ANDERSON. Yes, on the life safety issue, just imagine you are an equipment operator and it is 40 below, you are out trying to keep a road open so other people do not get stuck in those same conditions, and your equipment derates or breaks down. You are there, help is maybe hours away. We have good communication structures, but it still takes time.

Now you are in a situation, an uncertain situation with snow conditions, changing weather conditions, changing rapidly. You are basically helpless.

That, for us, that is a real concern in our department.

Senator RICKETTS. Yes. I think that is just kind of the point. Legislative reform that actually increases public safety is common sense, and we look forward to working with the committee on this. Thank you.

Senator CAPITO. Thank you, Senator Ricketts.

Senator Sullivan has asked to ask a few more questions. Since he is the sponsor of the bill, go forward.

Senator SULLIVAN. Thank you, Madam Chair.

Mr. Walke, I wanted to look at a little bit of your testimony. You had mentioned in your written testimony, by the way, I read most of it. It was almost 30 pages. Very impressive.

You said that Administrator Zeldin in February took further action to "address perceived concerns." After listening to this testimony, do you think these are perceived concerns or real concerns? Perceived, in my view, is kind of dismissive, right? I got, for the record, a whole bunch of Alaskans who are not perceived, these are real concerns. The commissioner just, I think, very, very strongly laid out real concerns.

When you say perceived, it is kind of dismissive of what we are talking about here. Is that your testimony? Do you think these are perceived concerns? Wouldn't you call them real concerns?

Mr. WALKE. Senator Sullivan, these are absolutely real concerns. In my testimony, if I used that word, and I trust that I did, I thought it was in a quote. If it is not in a quote, then I withdraw the word perceived.

Senator SULLIVAN. Okay, I appreciate that. Thank you.

Look, I have a lot of respect for the NRDC, and you guys have a lot of really smart attorneys. You had also mentioned that the bill is unnecessary and harmful to the health of Alaskans. That is another quote. I mean, I know this DEF thing is really harmful to the safety of Alaskans. Again, we need to address the NOx and SOx issues.

We have to do it smartly, so you do not take one State that has a lot of cold weather and presents really, really dangerous situations, let alone costs, which in our State are probably in the tens of millions that relate to this regulation.

Is that still your testimony? Or is your main testimony, hey, we shouldn't try to fix this through a law, we should try to fix it through the regulatory process?

Mr. WALKE. Testimony is that the regulatory process can balance the very real NOx health concerns, the very real safety and access concerns in Alaska. We are hearing in this hearing that this is not just about Alaska. It is now about all NOx control systems, apparently, including in warm temperatures. The bill is written to apply it to the entire United States.

I just do not think that is a balanced—

Senator SULLIVAN. Well, it has a primary focus, the bill does, and this hearing does, primary focus on cold weather operations where the systems really freeze up.

Let me turn to Commissioner Anderson again. We are talking about the economy, we are talking about danger, we are talking about how you are having to clear roads. One of the testimony, I want to make sure it is in the record, Madam Chair.

Senator CAPITO. Without objection.

Senator SULLIVAN. The Interior Alaska Fire Chiefs Association. They submitted testimony. I thought this was very powerful, because they are from the interior part of the State, Fairbanks and other. The fire chiefs are saying, hey, we have to fix this because our fire trucks do not work, when we are going out to like, address a burning building and people's lives are at stake, they are worried about the operational reliability of their fire trucks.

Can you, Commissioner, I know this is not exactly the DOT area, but it is safety, and you are talking about safety. Our fire chiefs are also saying this is a big problem.

Mr. ANDERSON. Yes, Senator, and that wasn't the only fire chief that commented. We also got others. Even the Anchorage fire department, which, Anchorage is our largest city in Alaska, put in testimonials about this problem as a concern. It is a bigger issue, absolutely.

Senator SULLIVAN. Yes. Just again for our witnesses, Anchorage does not get as cold as Fairbanks, usually. This winter, Anchorage has been 10, 15, 20, almost 20 below zero for a decent part of the winter. Anchorage has gotten really cold this winter, too. I am glad you are saying that that is the other fire chiefs.

Madam Chair, I really appreciate you holding this hearing. I want to commend the witnesses, all the witnesses. I want to thank you and Senator Lummis and Senator Ricketts. I want to work with you and Senator Whitehouse on what I think this hearing clearly demonstrates: there is a problem. A big problem. This is classic one-size-fits-all.

I am just glad, knock on wood, that nobody in my State has been killed yet because of this. If you are stranded on the Dalton Highway, it is 50 below zero and you have no cell service, that is very high danger. We need to fix it.

Senator CAPITO. Thank you. I could not agree more.

With no further questions, I would like to thank the witnesses and all my colleagues for your participation in today's hearing. Thank you.

Senators who wish to submit written questions for the record have until 5 p.m. on Wednesday, March 25th, to do so. The witnesses' responses to those questions are due back to the committee no later than 5 p.m. on Wednesday, April 8th, and will be submitted for the record.

With that, this hearing is adjourned.

[Whereupon, at 11:25 a.m., the hearing was adjourned.]

NFIB

555 12th Street NW, Suite 1001
Washington, D.C. 20004

1-800-552-5342
NFIB.com

March 17, 2026

The Honorable Dan Sullivan
United States Senate
706 Hart Senate Office Building
Washington, D.C. 20510

Dear Senator Sullivan:

On behalf of the National Federation of Independent Business, I write in support of S.3135, the *Cold Weather Diesel Reliability Act of 2025*. This bill would repeal Environmental Protection Agency (EPA) guidelines that can trigger automatic diesel engine shutdowns in cold weather. This legislation is an important step in lowering energy costs and increasing productivity for small businesses across the whole country.

NFIB represents approximately 300,000 small businesses across the United States. In NFIB's most recent *Problems and Priorities* survey, small businesses ranked the cost of natural gas, propane, gasoline, diesel, and fuel oil as their 6th most pressing issue.[1] In a recent NFIB member ballot, 96% of NFIB members opposed Congress restricting the purchase of consumer products based on their energy source.[2]

Current EPA emissions system rules mandate that engines shut down when diesel exhaust fluid (DEF) does not reach certain operating temperatures. This mandate is intended to reduce emissions. However, DEF freezes at 12 degrees Fahrenheit. In cold weather states like Alaska, where temperatures can fall below 12 degrees for extended periods of time, these rigid rules negatively impact small businesses and consumers. Moreover, an engine shutdown can cause serious harm to farmers or truck drivers who could be left stranded in remote locations in sub-zero temperatures.

S. 3135 directs the EPA to update its regulations to account for how DEF engines operate in colder weather, to prevent automatic shutdowns. This legislation is a commonsense approach that will eliminate a one-size-fits-all mandate and give more flexibility to truckers, farmers, and small businesses that use diesel fuel in cold climates.

NFIB supports repealing this burdensome rule which unnecessarily harms diesel engine reliability and increases energy costs for small businesses. We look forward to working with you to advance this bill and help ensure continued American energy dominance.

Sincerely,

Louis A. Bertolotti
Principal, Federal Government Relations
NFIB

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[1] Holly Wade & Madeline Oldstone, Small Business Problems & Priorities, NFIB Research Center, July 2024. http://bit.ly/40uXas5.
[2] NFIB Member Ballot, Mandate, vol. 583., September 2023, *Should the federal government ban or restrict the purchase of consumer products like new gas-powered vehicles and equipment or natural gas cooktops? (Yes: 96% No: 2% Undecided: 2%)*

NATIONAL CONSUMERS LEAGUE
1701 K Street, NW, Suite 1200 Washington, DC 20006
Main: (202) 835-3323 Fax: (202) 835-0747 www.nclnet.org

March 10, 2026

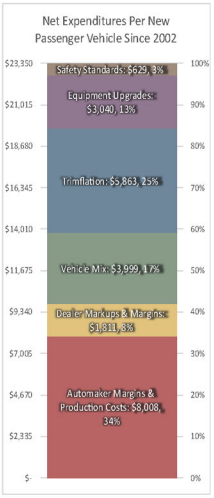
The Honorable Shelly Moore Capito
Chair
Environment & Public Works Committee
United States Senate
Washington, D.C. 20510

The Honorable Sheldon Whitehouse
Ranking Member
Environment & Public Works Committee
United States Senate
Washington, D.C. 20510

Dear Chair Capito and Ranking Member Whitehouse,

The National Consumers League (NCL) respectfully submits this letter for the record in advance of the hearing on S. 3135, the Cold Weather Diesel Reliability Act. As families across the country reel from the ongoing affordability crisis, we encourage lawmakers to consider the substantial effect fuel economy features have on alleviating household budgetary pressure, as detailed in our report titled Sticker Shock.

The American people do not have to choose between vehicle affordability and safety, energy independence, public health, and environmental stewardship. Compliance with federal fuel economy and safety standards accounts for a small fraction of vehicle expenditures, but it generates thousands of dollars in benefits per household and trillions of dollars in societal benefits. Moreover, average household expenditures on new and used vehicles have generally risen more slowly than inflation and other essential household expenses (i.e., healthcare, housing, groceries, and education), easing budgetary pressures.



Since 2002, nominal average expenditures per new vehicle (i.e., transaction prices not adjusted for inflation) have increased $23,349.83. Improvements in fuel economy and safety standards account for only a modest share of this increase.

- Federal **safety standards** that first required compliance between 2002 and 2019 account for only $628.98, or 2.7 percent, of the increase in average expenditures per new passenger vehicle since 2002.

- **Equipment upgrades**—which include changes in fuel economy, comfort, convenience, durability, nonmandatory safety improvements, and safety standards that first require compliance after 2019—account for only $3,040.20, or 13 percent, of the increase in average expenditures per new passenger vehicle since 2002.

- **Trimflation**—the rise in expenditures attributable to the sale of more high-quality models—accounts for $5,863.32, or 25.1 percent, of the increase in average expenditures per new passenger vehicle since 2002.

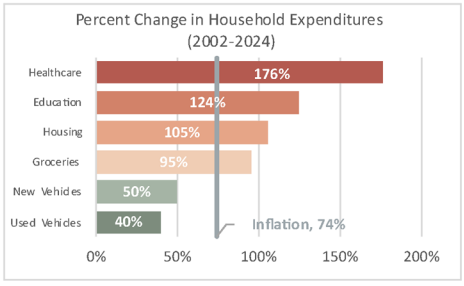
- Shifting **vehicle mix**—automakers and dealers selling more light trucks than cars—accounts for $3,998.54, or 17.1 percent, of the increase in average expenditures per new passenger vehicle since 2002.

- **Dealer markups and margins** account for $1,810.78, or 7.8 percent, of the increase in average expenditures per new passenger vehicle since 2002.

- **Automaker margins and production costs** account for $8,008.03, or 34.3 percent, of the increase in average expenditures per new passenger vehicle since 2002.

Vehicle affordability remains strong. When adjusted for inflation, average expenditures per new car have fallen 14.7 percent since 2002, a decrease of $5,772.60 per transaction. Over the same period, the real average expenditure per new light truck rose 8.2 percent, an increase of $3,867.81. The real average expenditure per new passenger vehicle (i.e., cars and light trucks combined) rose 10.4 percent, an increase of $4,501.53. The real price of used vehicles was approximately 5.8 percent higher in 2025 than in 2002.

Purchasing power for new and used passenger vehicles has improved over the last two decades. Purchasing power measures whether household disposable income rises faster than passenger vehicle expenditures, thereby leaving more income for other goods and services. Since 2002, purchasing power for new cars has increased 34.9 percent, purchasing power for new light trucks has risen 17.4 percent, purchasing power for new passenger vehicles has grown 15.7 percent, and purchasing power for used passenger vehicles has increased 19.2 percent.



Despite increases in nominal average expenditures per vehicle, spending on new and used passenger vehicles constitutes a shrinking portion of household budgets. As durability and longevity improve, households are purchasing passenger vehicles less frequently, spreading the costs of new and used vehicles over longer periods of time. Since 2002, average household expenditures on new and used vehicles rose 50 percent and 40 percent, respectively, well below the 74 percent increase in inflation over that period. Average household expenditures on healthcare, education, housing, and groceries rose far faster, putting a significant strain on household budgets.

All the while, today's cars and light trucks are far more fuel efficient and come equipped with vital, lifesaving features like advanced driver assistance systems, sophisticated airbags, and

electronic stability control, saving consumers thousands of dollars over the life of a vehicle. Between 2002 and 2024, the real-world miles per gallon (mpg) of new cars rose from 22.8 mpg to 36.6 mpg, a 60.5 percent improvement. Over the same period, the real-world mpg of light trucks increased from 16.5 mpg to 24.6 mpg, a 49.3 percent increase. Because of fuel-economy improvements, owners of model year 2024 cars save, on average, $9,099.75 in avoided gasoline expenditures. Owners of model year 2024 light trucks save, on average, $9,920.23 in avoided gasoline expenditures. In addition, federal safety standards established between 1968 and 2019 have generated an estimated $12.8 trillion in net societal benefits, including $5,164.51 per household in 2025 alone.

We thank you for considering our perspective on fuel economy features and vehicle affordability.

Sincerely,

Daniel M. Greene

Daniel Greene
Senior Director of Consumer Protection & Product Safety
The National Consumers League

Engine Technology Forum

Diesel Engine Emissions Control, Selective Catalytic Reduction (SCR) Systems, and Diesel Exhaust Fluid (DEF): What You Need to Know
March 2026

What's the issue?

Some truckers and farmers have raised concerns about diesel exhaust fluid (DEF) and the performance of their diesel engines, including loss of power, shutdowns, or de-rating of performance.

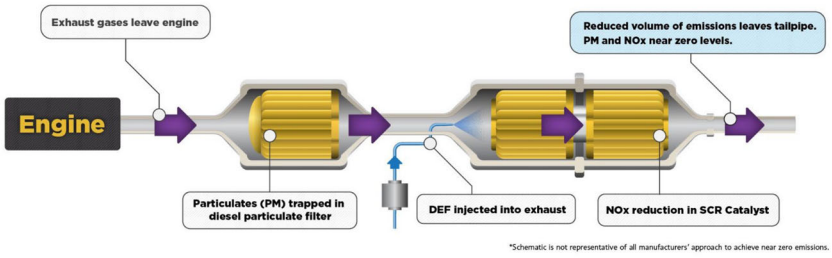
Selective Catalytic Reduction (SCR) is a technology used on the vast majority of new diesel engines since 2010 for heavy-duty trucks and since 2014 for off-road engines and equipment. It enables near-zero emissions and reduces fuel consumption.

Issues with SCR systems can arise when they are not properly maintained or replenished with Diesel Exhaust Fluid (DEF), which is required as part of engine operation. (DEF is a liquid – 32% aqueous urea and purified water – stored in tanks on the vehicle and dispensed into the exhaust stream as the engine operates).

To ensure emissions performance, dashboard warnings and other indicators are activated so the vehicle or equipment operator knows that the system is sensing a problem, that DEF fluid levels are low, or that some other issue means service is needed sometime soon. These warnings – in the form of lights and messages on the dash – come at increasingly frequent mileage or time-of-operation intervals. Ultimately, ignoring these warnings can result in engine power being reduced and, finally, the engine failing to start.

The warnings and changes to engine operating parameters are known as inducements. These signal to the operator that something critical in the engine and emissions control system needs to be addressed. The U.S. Environmental Protection Agency (EPA) requires manufacturers to implement these inducements as part of the certification process to ensure that emissions controls are operating as designed, including the supply of DEF and SCR system function.

Diesel Emissions Control System



What is happening to address these concerns?

Users' concerns about DEF-related issues, such as untimely or premature engine shutdowns in vehicles with SCR, have been acknowledged. Working with manufacturers, the EPA issued guidance in May 2025 that authorized manufacturers to make adjustments to various SCR system parameters and inducements to address the reported issues of concern. For example, these adjustments will allow truckers and farmers more time to service their engines before power is reduced or the engine ultimately shuts down.

Engine manufacturers are currently implementing this guidance voluntarily with their customers. This will take time across the vast range of engines and equipment types that rely on SCR and DEF, including those manufactured since 2010 as well as new models being sold today.

By law, the EPA cannot mandate field fixes for in-use vehicles and nonroad equipment, which is why the agency is issuing voluntary guidance to manufacturers on system modifications to reduce engine power reductions ("derates").

On February 3, 2026, EPA took additional measures to better understand diesel exhaust fluid issues, requesting detailed information from the top 14 on-road and nonroad manufacturers. This information – including warranty claims, failure rates, and repair information for MY 2016, 2019 and 2023 will help better understand the nature and extent of the reported issues with diesel exhaust fluid systems.

Why do we need DEF?

SCR systems and DEF enable engines to do more than just meet tighter emissions standards; they also allow engines to be more fuel efficient and achieve higher fuel economy, saving operators hundreds or thousands of dollars a year in fuel costs, depending on the type of operation. SCR systems can't function properly without DEF, and long-term damage to the engine will occur.

Why can't we just get rid of DEF?

SCR systems are integral to advanced diesel engines and the design of almost every vehicle, engine, or machine built since 2010; they cannot simply be removed, and the DEF component is central to the SCR system.

Advanced engines have many sensors, controls, and feedback loops that monitor and adjust real-time performance, and the emissions system is an integral component. You cannot "delete DEF" or "take it off the engine" without completely reworking the entire engine and emissions control system, at extreme cost and with likely loss of performance and durability of the engine.

Bottom Line

- SCR technology is an integral part of advanced engines and equipment, reducing fuel consumption and improving performance.
- Manufacturers are responding to EPA guidance with new flexibilities for DEF system operation, providing their customers with more time for repairs or maintenance
- Maintaining the integrity and proper performance of engine emissions systems is a legal obligation for manufacturers as well as vehicle and equipment operators under the Clean Air Act.

Resources:

- At Iowa State Fair, EPA Administrator Zeldin Announces Diesel Exhaust Fluid (DEF) Fix | US EPA
- EPA Announcement Regarding DEF and Engines, Vehicles, and Equipment Using Advanced Emissions Controls
- Diesel Exhaust Fluid | US EPA
- Selective Catalytic Reduction (SCR) | Engine Technology Forum

Questions? We're here to help: info@enginetechforum.org. Learn more at enginetechforum.org.

Outlook

FW: DEF Testimonials

From Sakalaskas, Jason (DOT) <jason.sakalaskas@alaska.gov>
Date Mon 2/23/2026 8:17 AM
To Mills, Andy J (DOT) <andy.mills@alaska.gov>
Cc Anderson, Ryan (DOT) <ryan.anderson@alaska.gov>

Additional response from Dalton District.

Jason Sakalaskas
Northern Region Maintenance & Operations Chief
Alaska Department of Transportation & Public Facilities
Office: 907-451-2214 • jason.sakalaskas@alaska.gov
Keep Alaska Moving

From: Fischer, Joshua S (DOT) <joshua.fischer@alaska.gov>
Sent: Monday, February 23, 2026 7:34 AM
To: Ludington, Jason R (DOT) <jason.ludington@alaska.gov>; Sakalaskas, Jason (DOT) <jason.sakalaskas@alaska.gov>
Cc: Davis, Ron (DOT) <ron.davis@alaska.gov>; Jennings, Sam R (DOT) <sam.jennings@alaska.gov>; Heller, Chad M (DOT) <chad.heller@alaska.gov>; Mattson, Robert A (DOT) <robert.mattson@alaska.gov>; Hubert, Geoffrey A (DOT) <geoffrey.hubert@alaska.gov>
Subject: Re: DEF Testimonials

Jason,

The Dalton has 47 total pieces of equipment that require DEF. 6 graders, 7 loaders, 13 plow trucks, 7 tractors, 4 snowblowers, 1 roller, 1 dozer, 2 skidsteers and 6 airport sweepers. We use in the neighborhood of 12,000 gallons of DEF per year in the district at a purchase cost of roughly $60,000. 70-80% of our equipment failures are emissions related. On any given day, I would say at least 10% of our equipment is down due to emissions related issues.

Common issues we see with DEF in the district include:

- Derates requiring immediate shutdown
- Derates which limit the speed or torque at which a vehicle will operate(sometimes as slow as 5mph)
- Derates due to frozen DEF tanks/lines from equipment being parked outside
- Need for service regens, at times requiring dealer proprietary programming which requires hauling the equipment to the dealership in Fairbanks or scheduling a field tech to travel to the site.
- Lack of computers and proper diagnostic equipment at each camp. Computers and programming are shared between neighboring camps and not always readily available.

- Contamination from fill nozzles, dirt, snow, containers, etc
- Failure of DEF system components(dosers, lines, sensors, tanks due to freezing)
- Supply/storage issues. Shop space is limited and immediate resupply can be problematic
- Additional waste to manage from barrels, totes, and small plastic jugs
- Poor DEF quality due to manufacturer issue or contamination

Any time a piece of equipment goes down, it affects our operation. The largest impact becomes our inability to accomplish our tasks or severely reduced efficiency at those given tasks. An example would be having to use a grader to plow snow instead of a plow truck. A grader operates at roughly half the speed of a plow truck and stacks the snow rather than casting which will result in the eventually need for winging or pulling and blowing of the berm(additional work). Other examples would be not being able to blade a gravel section of road due to the water truck being down or derated, untimely clearing of snow from a runway, inability to haul freight due to the truck being down.

There are also safety concerns for staff working in remote locations. Many of our camp crews are composed of only 2 operators. They may be working 60 miles or more apart at times and experience immediate shutdown requirements due to emissions issues. This is problematic or possibly life threating during times of cold temperatures and/or windy conditions.

Overall DEF issues/failures impact our operation in a number of ways, all of which affect the efficiency or ability of crews to complete work. It can create additional work at times further reducing our efficiency. It also brings down camp moral and adds to frustration of crews when they are not able to complete work to the desired level or need. This all impacts the traveling public during every seasons on the highways, at small rural airports as well as the larger Deadhorse and Barrow Airports.

Thanks,
Josh

From: Ludington, Jason R (DOT) <jason.ludington@alaska.gov>
Sent: Sunday, February 22, 2026 4:26 PM
To: Sakalaskas, Jason (DOT) <jason.sakalaskas@alaska.gov>
Cc: Davis, Ron (DOT) <ron.davis@alaska.gov>; Fischer, Joshua S (DOT) <joshua.fischer@alaska.gov>; Jennings, Sam R (DOT) <sam.jennings@alaska.gov>; Heller, Chad M (DOT) <chad.heller@alaska.gov>; Mattson, Robert A (DOT) <robert.mattson@alaska.gov>; Hubert, Geoffrey A (DOT) <geoffrey.hubert@alaska.gov>
Subject: Re: DEF Testimonials

Jason

I wanted to follow up quickly with some specifics from Denali and Rural Aviation side on the DEF/aftertreatment issues we're dealing with. Ironically, DEF and aftertreatment systems are supposed to make our fleet cleaner, but they actually make it less reliable in the winter time when we need them the most, for keeping runways and highway access clear in sub-zero conditions.

Quick overview of our setup:

- 3 stations along the Parks Highway: 10 plow trucks, 4 loaders, and 4 graders, all equipped with DEF/aftertreatment systems.

- Galena station: 2 plows with DEF now, plus a loader coming soon.
- 18 remote airports: Roughly half the equipment has aftertreatment systems.

We use around 700 gallons of DEF per year. Around 70% of our equipment failures stem from DEF-related problems, broken lines, clogged dosing valves, filters, etc. Repairs take an average of 2 weeks at our better sites, but much longer at remote airports due to parts access, travel, and diagnostics.

I've become accustomed to a lengthy list of down equipment every week—it's just the new normal with these systems up here.

On top of that:

- Storage is tough at our unheated rural SREBs, frequent freeze-thaw cycles crack lines/tanks and create contamination risks.
- Parks Highway stations don't have enough indoor space to fit all the equipment inside and we don't have a lot of room to store needed volumes of DEF barrels inside, so we're parking quite a few pieces of equipment outside in the cold, which worsens issues.
- Shipping DEF to remote villages/airports means flying it in, more than doubling our cost per gallon due to air freight logistics.

These aren't minor inconveniences derates or no-starts on our equipment can delay critical runway clearing and major highway snow removal right when winter weather hits hardest. Along the Parks Highway, reliable plowing is essential for keeping this key route open between Fairbanks, Denali areas, and Anchorage connections any downtime risks hazardous conditions, stranded travelers, and disrupted access to remote communities that depend on road links for supplies, emergency response. Delays in our aviation networks puts our villages' mobility, medevac, village resupply, and overall safety at risk in life-threatening cold.

Thanks,

Jason

Sent from my iPhone

> On Feb 20, 2026, at 10:07 AM, Sakalaskas, Jason (DOT) <jason.sakalaskas@alaska.gov> wrote:
>
> There is an ongoing push to better understand such impacts of the use of DEF in cold climates and look for ways to advocate for variances of its use again in cold climates. I know you all have a lot to say on this topic so now is your time to provide real world examples and testimony's of these actual impacts. Below are some items it have heard from all of you or staff on this subject but this is only provided to spur your thoughts:
>
> - Freeze and thaw of DEF and impact to equipment in rural locations such as in our SREB's where heat is not always provided.
> - Storage of DEF – contamination, waste generated from containers, etc.
> - Sensitivity of the systems and codes which derate equipment. When, where, and how this impacts operations. Dangerous for operators in some remote areas.

- Lack of consistent communications at our shops making it difficult to reset codes and diagnose issues.
- Locations of such systems on equipment doesn't also for proper heating of the tank causing issues.
- Increased cost of the materials

Outlook

Re: DEF Testimonials

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Date Sun 2/22/2026 4:26 PM
To Sakalaskas, Jason (DOT) <jason.sakalaskas@alaska.gov>
Cc Davis, Ron (DOT) <ron.davis@alaska.gov>; Fischer, Joshua S (DOT) <joshua.fischer@alaska.gov>; Jennings, Sam R (DOT) <sam.jennings@alaska.gov>; Heller, Chad M (DOT) <chad.heller@alaska.gov>; Mattson, Robert A (DOT) <robert.mattson@alaska.gov>; Hubert, Geoffrey A (DOT) <geoffrey.hubert@alaska.gov>

6 attachments (30 KB)
image001.png; image002.png; image003.png; image004.png; image005.png; image006.png;

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> - Increased cost of the materials

Outlook

RE: DEF Testimonials

From Davis, Ron (DOT) <ron.davis@alaska.gov>
Date Fri 2/20/2026 4:28 PM
To Sakalaskas, Jason (DOT) <jason.sakalaskas@alaska.gov>

Jason,

Almost all of the diesel equipment currently operated in the Fairbanks District have emissions systems that utilize diesel exhaust fluid (DEF). Due to the large number of equipment using DEF, we have gone to purchasing it in bulk, typically 300-gallon IBC totes. To reduce waste, we are now refilling our totes. In an average year, we purchase upwards of 5,000 gallons of DEF through contract, currently priced at $3.05 per gallon. Since it does freeze, we have to keep it in a heated facility, which takes up critical shop space. We install extra-long hoses on the electric DEF pumps so that equipment can be filled outside. During the summer, we utilize 55-gallon drums with hand pumps to transfer DEF to equipment that does not return to camp every day.

Every time DEF is handled, it opens the possibility for contamination. Our emission systems are very sensitive to DEF quality – any contamination has the possibility of causing a system malfunction. This could result in a Check Engine Light (CEL), or something more serious that could cause the engine computer to go into a de-rate mode, potentially stranding the operator. This is particularly critical at our remote stations where the ability to communicate a breakdown could be limited. Breakdowns due to emission system / DEF issues has required us to send equipment out to recover broken down equipment and transport it back to a repair facility. Breakdowns are not solely related to contamination, however. Due to the positioning of system components, we often see DEF lines come off due to snow/ice buildup, DEF lines break due to cold weather, and tanks freeze and break when equipment is parked outside. In extreme cold, the DEF heaters installed in equipment can have trouble keeping enough DEF flowing for the system to work properly. Any downtime, for emissions issues or otherwise, is costly, not only in a financial sense, but also in the loss of the machine for the duration of its repair. Loss of equipment for any length of time significantly impacts our ability to keep our roads safe for the traveling public no matter what the time of year may be.

Please let me know if I have addressed everything you requested, or if you require more information

Ron Davis
Fairbanks Maintenance & Operations Superintendent
Alaska Department of Transportation & Public Facilities
Office: 907.451.2359 • Cell: 907.388.8206 • ron.davis@alaska.gov

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From: Sakalaskas, Jason (DOT) <jason.sakalaskas@alaska.gov>
Sent: Friday, February 20, 2026 10:08 AM
To: Davis, Ron (DOT) <ron.davis@alaska.gov>; Fischer, Joshua S (DOT) <joshua.fischer@alaska.gov>; Ludington, Jason R (DOT) <jason.ludington@alaska.gov>; Jennings, Sam R (DOT) <sam.jennings@alaska.gov>; Heller, Chad M (DOT) <chad.heller@alaska.gov>; Mattson, Robert A (DOT) <robert.mattson@alaska.gov>; Hubert,

Geoffrey A (DOT) <geoffrey.hubert@alaska.gov>
Subject: DEF Testimonials

Gentleman,

I apologize for the short turn around, but I NEED testimonials for impact of DEF on our operations by MONDAY this next week February 23. This information is going to be provided to the Commissioners office of which they will use to supply Sullivan's office with the feedback. There is an ongoing push to better understand such impacts of the use of DEF in cold climates and look for ways to advocate for variances of its use again in cold climates. I know you all have a lot to say on this topic so now is your time to provide real world examples and testimony's of these actual impacts. Below are some items it have heard from all of you or staff on this subject but this is only provided to spur your thoughts:

- Freeze and thaw of DEF and impact to equipment in rural locations such as in our SREB's where heat is not always provided.
- Storage of DEF – contamination, waste generated from containers, etc.
- Sensitivity of the systems and codes which derate equipment. When, where, and how this impacts operations. Dangerous for operators in some remote areas.
- Lack of consistent communications at our shops making it difficult to reset codes and diagnose issues.
- Locations of such systems on equipment doesn't also for proper heating of the tank causing issues.
- Increased cost of the materials

And I am sure many more. Thanks again for you efforts on this request.

Jason Sakalaskas
Northern Region Maintenance & Operations Chief
Alaska Department of Transportation & Public Facilities
Office: 907-451-2214 • jason.sakalaskas@alaska.gov
Keep Alaska Moving

Outlook

Re: DEF Testimonials

From Hubert, Geoffrey A (DOT) <geoffrey.hubert@alaska.gov>
Date Fri 2/20/2026 12:47 PM
To Sakalaskas, Jason (DOT) <jason.sakalaskas@alaska.gov>

Listed are issues that we deal with in Western. I might have rambled on a bit.....

- SREB's are not heated in the outlying villages which make it hard to have DEF stored onsite, I ask that the contractors bring a case or two of DEF to their residence so it's thawed and can be used when needed.
- We run into issues after the equipment sits all summer the DEF quality is not in the 32.5% range anymore and causes DEF system codes which will derate the equipment. It requires us to fly in drain the DEF tank, refill with new DEF and run a verification test on the computer to disable the derate condition.
- When a piece of equipment has a DEF issue or system code, and it's not taken care of right away..... which it usually isn't as the operators are trying to get the job done and they ignore the message it results in a derate condition, again we have to fly out to make the repair.

I'll use Kotzebue as an example since we currently don't have a mechanic onsite.

When a def issues occur, we have to make reservations on Bering Air and with them being the only air carrier in Western it can be a few days before we are able to get to Kotzebue from Nome. When we get to Kotzebue, we miss all connecting flights to the outlying villages for that day and we end up overnighting in Kotz and flying out the next day to troubleshoot or make the repair, then again overnight in Kotz before we can make it back home the following evening. Three full days it takes us out of Nome. I would say on average this happens 2-3 times a month.

Currently right know Western has the following DEF issues.

- Pilot station DEF issues with grader
- Russian Mission DEF issues with grader
- Anvik DEF issues with loader
- Brevig Mission DEF issues with Dozer
- Kotzebue Airport DEF issues with loader
- Shishmaref DEF issues with loader
- Savoonga DEF issues with loader

Parts are on order for all of the above equipment. When they arrive, I will complete the repairs.

Geoff Hubert
Equipment Shop Foreman, Western District
SOA/DOT-SEF

Geoffrey.Hubert@alaska.gov
Office 907-443-3429
Cell 907-304-1145

From: Sakalaskas, Jason (DOT) <jason.sakalaskas@alaska.gov>
Sent: Friday, February 20, 2026 10:07 AM
To: Davis, Ron (DOT) <ron.davis@alaska.gov>; Fischer, Joshua S (DOT) <joshua.fischer@alaska.gov>; Ludington, Jason R (DOT) <jason.ludington@alaska.gov>; Jennings, Sam R (DOT) <sam.jennings@alaska.gov>; Heller, Chad M (DOT) <chad.heller@alaska.gov>; Mattson, Robert A (DOT) <robert.mattson@alaska.gov>; Hubert, Geoffrey A (DOT) <geoffrey.hubert@alaska.gov>
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Keep Alaska Moving

Outlook

FW: DEF Testimonials

From Sakalaskas, Jason (DOT) <jason.sakalaskas@alaska.gov>
Date Mon 2/23/2026 11:14 AM
To Mills, Andy J (DOT) <andy.mills@alaska.gov>
Cc Anderson, Ryan (DOT) <ryan.anderson@alaska.gov>

1 attachment (1 MB)
V#39310 DEF costs.pdf;

Ok I believe this is the last one.

Jason Sakalaskas
Northern Region Maintenance & Operations Chief
Alaska Department of Transportation & Public Facilities
Office: 907-451-2214 • jason.sakalaskas@alaska.gov
Keep Alaska Moving

From: Heller, Chad M (DOT) <chad.heller@alaska.gov>
Sent: Monday, February 23, 2026 11:01 AM
To: Sakalaskas, Jason (DOT) <jason.sakalaskas@alaska.gov>; Davis, Ron (DOT) <ron.davis@alaska.gov>; Fischer, Joshua S (DOT) <joshua.fischer@alaska.gov>; Ludington, Jason R (DOT) <jason.ludington@alaska.gov>; Jennings, Sam R (DOT) <sam.jennings@alaska.gov>; Mattson, Robert A (DOT) <robert.mattson@alaska.gov>; Hubert, Geoffrey A (DOT) <geoffrey.hubert@alaska.gov>
Subject: RE: DEF Testimonials

The Tazlina District operates 31 pieces of equipment requiring DEF, including 16 trucks, 7 loaders, 2 graders, 2 tractors, 1 dozer, 2 distributor trucks, and 1 excavator. We use approximately 4,400 gallons of DEF annually at a cost of roughly $25,000 per year. However, the operational and indirect costs far exceed the cost of the fluid itself. We are consistently operating at approximately 30% below fleet capacity due to DEF-related failures and such failure account for around 70% of total down time. Attached is the LTD maintenance cost of DEF related problems of one truck. It does not include any transportation cost or down time cost. Just actual DEF related repair costs are 28% of the LTD maintenance cost.

Impacts include:

• **Freeze and thaw of DEF and impacts in rural locations** – DEF lines freeze, crack, and fail during winter conditions. In rural locations and SREB facilities where heat is not consistently available, equipment is more susceptible to DEF system failures. Two-week delays for replacement parts are common, leaving critical equipment out of service during winter operations.

• **Storage of DEF** – DEF storage consumes valuable shop space. We experience contamination concerns, disposal issues from empty DEF containers filling dumpsters, and logistical challenges maintaining proper storage temperatures.

• **Sensitivity of systems and derate codes** – DEF systems frequently trigger engine derates during snow events. Equipment loses power or becomes inoperable while actively plowing or sanding. This creates operational delays and can create hazardous conditions for operators working in remote areas.

• **Lack of consistent communications and diagnostic capability** – Many DEF-related codes cannot be reset without dealer-specific diagnostic software. In remote areas with limited connectivity, this prevents timely troubleshooting and extends downtime.

• **Increased material and repair costs** – DEF lines and components can cost between $300 and $600 per line. Parts typically require up to two weeks to arrive adding to excessive down time.

• **Example** – Vehicle #39309 was down for one full year due to emissions system failures. The unit was transported over 500 miles by lowboy for repairs. During that time, we incurred $42,936 in operating and replacement costs, not including lost productivity, or cost of repairs.

These are not isolated incidents. DEF-related failures have created measurable financial strain, reduced fleet readiness, and operational risk in extreme winter environments. The cumulative impact affects our ability to safely maintain roads, respond to storms, and support emergency services in rural Alaska.

Chad Heller
Maintenance and Operations Supervisor
Tazlina Department of Transportation & PF
Mile 110 Richardson Hwy PO Box 7
Glennallen, Ak 99588
Ph: 907-822-3222
Cell: 907-259-3222
Email:chad.heller@alaska.gov

From: Sakalaskas, Jason (DOT) <jason.sakalaskas@alaska.gov>
Sent: Friday, February 20, 2026 10:08 AM
To: Davis, Ron (DOT) <ron.davis@alaska.gov>; Fischer, Joshua S (DOT) <joshua.fischer@alaska.gov>; Ludington, Jason R (DOT) <jason.ludington@alaska.gov>; Jennings, Sam R (DOT) <sam.jennings@alaska.gov>; Heller, Chad M (DOT) <chad.heller@alaska.gov>; Mattson, Robert A (DOT) <robert.mattson@alaska.gov>; Hubert, Geoffrey A (DOT) <geoffrey.hubert@alaska.gov>
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Keep Alaska Moving

39310

Statewide Equipment Fleet

Closed WO Costs

For WOs Closed 07/01/2016 thru 01/30/2025

Asset	Cls	Di st	Mdl Yr	WO	Sh	Date Clsd	Bil WO?	Mnt Cls	Sys	Wrk Typ	Labr	Parts	Comdty	Vndr	Tot Cost
39310	217	E	2015	2359295	TA	12/09/2016	N	R	31	ELECTRICAL 20 WEAR & TEAR	416.19	0.00	13.32	0.00	430
39310	217	E	2015	2360860	TA	02/16/2017	N	W	31	ELECTRICAL 23 TRAVEL	594.55	0.00	19.03	0.00	614
39310	217	E	2015	2360860	TA	02/16/2017	N	W	31	ELECTRICAL 25 WARRANTY	1070.19	0.00	34.25	0.00	1104
39310	217	E	2015	2369813	TA	01/25/2018	N	R	31	ELECTRICAL 02 CLEAN/INSPECT	117.34	0.00	3.87	0.00	121
39310	217	E	2015	2369813	TA	01/25/2018	N	R	31	ELECTRICAL 20 WEAR & TEAR	3930.89	633.80	150.65	0.00	4715
39310	217	E	2015	2369813	TA	01/25/2018	N	R	31	ELECTRICAL 71 TEST DRIVE	469.36	0.00	15.49	0.00	485
39310	217	E	2015	2370837	TA	02/26/2018	N	R	31	ELECTRICAL 20 WEAR & TEAR	234.68	0.00	7.74	0.00	242
39310	217	E	2015	2374307	TA	06/25/2018	N	W	35	COMPUTER/E 25 WARRANTY	117.34	0.00	3.87	0.00	121
39310	217	E	2015	2378786	TA	11/20/2018	N	R	31	ELECTRICAL 20 WEAR & TEAR	0.00	1631.36	59.95	0.00	1691
39310	217	E	2015	2378786	TA	11/20/2018	N	R	35	COMPUTER/E 20 WEAR & TEAR	365.25	0.00	13.51	0.00	379
39310	217	E	2015	2384195	TA	05/28/2019	N	R	35	COMPUTER/E 50 DIAGNOSTICS	608.75	0.00	22.52	0.00	631
39310	217	E	2015	2384386	TA	06/13/2019	N	W	31	ELECTRICAL 25 WARRANTY	121.75	0.00	4.50	0.00	126
39310	217	E	2015	2384386	TA	06/13/2019	N	W	35	COMPUTER/E 25 WARRANTY	0.00	0.00	0.00	75.15	75
39310	217	E	2015	2386793	TA	08/15/2019	N	R	35	COMPUTER/E 20 WEAR & TEAR	182.63	0.00	6.03	0.00	189
39310	217	E	2015	2388647	TA	10/16/2019	N	R	35	COMPUTER/E 20 WEAR & TEAR	457.44	158.85	12.79	0.00	629
39310	217	E	2015	2391150	TA	02/05/2020	N	R	31	ELECTRICAL 20 WEAR & TEAR	571.80	0.00	12.01	0.00	584
39310	217	E	2015	2392583	TA	02/26/2020	N	W	35	COMPUTER/E 25 WARRANTY	343.08	0.00	7.20	0.00	350
39310	217	E	2015	2394659	TA	05/12/2020	N	R	35	COMPUTER/E 20 WEAR & TEAR	1029.24	0.00	21.61	0.00	1051
39310	217	E	2015	2396169	TA	06/17/2020	N	R	35	COMPUTER/E 20 WEAR & TEAR	228.72	0.00	4.80	0.00	234
39310	217	E	2015	2401521	TA	12/28/2020	N	R	35	COMPUTER/E 20 WEAR & TEAR	114.88	18.45	2.53	0.00	136
39310	217	E	2015	2402192	TA	02/10/2021	N	R	35	COMPUTER/E 20 WEAR & TEAR	57.44	0.00	1.09	0.00	59
39310	217	E	2015	2402192	TA	02/10/2021	N	R	35	COMPUTER/E 23 TRAVEL	172.32	0.00	3.27	0.00	176
39310	217	E	2015	2410471	TA	11/08/2021	N	R	31	ELECTRICAL 20 WEAR & TEAR	114.88	447.09	10.67	0.00	573
39310	217	E	2015	2411596	TA	12/17/2021	N	R	31	ELECTRICAL 20 WEAR & TEAR	229.76	386.78	11.72	0.00	628
39310	217	E	2015	2412328	TA	01/13/2022	N	R	31	ELECTRICAL 20 WEAR & TEAR	0.00	112.80	2.14	0.00	115
39310	217	E	2015	2412737	TA	02/15/2022	N	R	31	ELECTRICAL 20 WEAR & TEAR	0.00	745.29	18.82	57.20	821
39310	217	E	2015	2416996	TA	07/08/2022	N	R	31	ELECTRICAL 20 WEAR & TEAR	0.00	150.36	4.36	0.00	155
39310	217	E	2015	2421061	TA	12/06/2022	N	R	31	ELECTRICAL 20 WEAR & TEAR	0.00	464.94	8.83	0.00	474
39310	217	E	2015	2428895	TA	10/23/2023	N	R	31	ELECTRICAL 20 WEAR & TEAR	0.00	1803.04	35.16	0.00	1838
39310	217	E	2015	2430139	TA	12/05/2023	N	R	31	ELECTRICAL 20 WEAR & TEAR	786.12	33.84	16.40	0.00	836
39310	217	E	2015	2430139	TA	12/05/2023	N	R	31	ELECTRICAL 50 DIAGNOSTICS	1179.18	0.00	23.58	0.00	1203
39310	217	E	2015	2431461	TA	01/24/2024	N	R	35	COMPUTER/E 20 WEAR & TEAR	131.02	32.47	3.27	0.00	167
39310	217	E	2015	2431461	TA	01/24/2024	N	R	35	COMPUTER/E 50 DIAGNOSTICS	131.02	0.00	2.62	0.00	134
39310	217	E	2015	2439976	TA	01/08/2025	N	R	31	ELECTRICAL 20 WEAR & TEAR	2100.62	855.38	53.20	0.00	3009
39310	217	E	2015	2439976	TA	01/08/2025	N	R	35	COMPUTER/E 20 WEAR & TEAR	254.62	135.69	7.02	0.00	397
39310	217	E	2015	2439976	TA	01/08/2025	N	R	35	COMPUTER/E 23 TRAVEL	0.00	1793.20	32.28	0.00	1825
39310	217	E	2015	2439976	TA	01/08/2025	N	R	35	COMPUTER/E 50 DIAGNOSTICS	381.93	0.00	6.87	0.00	389
Rpt Totals:							1 Assets				16513	9403	657	132	26706

Maint Costs Not Reduced by Mfr Warranty Recovery

Statewide Equipment Fleet

Closed WO Costs

For WOs Closed 07/01/2016 thru 01/30/2025

Asset	Cls	Di st	Mdl Yr	WO	Sh	Date Clsd	Bil WO?	Mnt Cls	Sys	Wrk Typ	Labr	Parts	Comdty	Vndr	Tot Cost
39310	217	E	2015	2386542	TA	08/13/2019	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	0.00	170.61	4.48	0.00	175
39310	217	E	2015	2389747	TA	11/19/2019	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	0.00	44.36	0.74	0.00	45
39310	217	E	2015	2390590	TA	12/23/2019	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	686.16	176.59	18.12	0.00	881
39310	217	E	2015	2390590	TA	12/23/2019	N	R	46	DEF/REGEN/ 23 TRAVEL	343.08	0.00	7.20	0.00	350
39310	217	E	2015	2391150	TA	02/05/2020	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	4059.78	1256.10	111.32	0.00	5427
39310	217	E	2015	2391150	TA	02/05/2020	N	R	46	DEF/REGEN/ 23 TRAVEL	686.16	0.00	14.40	0.00	701
39310	217	E	2015	2391150	TA	02/05/2020	N	R	46	DEF/REGEN/ 50 DIAGNOSTICS	1143.60	0.00	24.02	0.00	1168
39310	217	E	2015	2392161	TA	02/13/2020	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	571.80	148.42	15.13	0.00	735
39310	217	E	2015	2394659	TA	05/12/2020	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	1257.96	2022.87	66.18	0.00	3347
39310	217	E	2015	2394659	TA	05/12/2020	N	R	46	DEF/REGEN/ 71 TEST DRIVE	114.36	0.00	2.40	0.00	117
39310	217	E	2015	2394659	TA	05/12/2020	N	R	46	DEF/REGEN/ 23 TRAVEL	343.08	0.00	7.20	0.00	350
39310	217	E	2015	2395155	TA	05/19/2020	N	R	46	DEF/REGEN/ 50 DIAGNOSTICS	228.72	0.00	4.80	0.00	234
39310	217	E	2015	2395155	TA	05/19/2020	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	400.26	0.00	8.41	0.00	409
39310	217	E	2015	2396056	TA	06/18/2020	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	2058.48	0.00	43.23	0.00	2102
39310	217	E	2015	2396709	TA	07/09/2020	N	R	46	DEF/REGEN/ 50 DIAGNOSTICS	1436.00	0.00	27.29	0.00	1463
39310	217	E	2015	2401159	TA	12/17/2020	N	R	46	DEF/REGEN/ 50 DIAGNOSTICS	0.00	340.12	5.05	45.15	390
39310	217	E	2015	2401521	TA	12/28/2020	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	804.16	0.00	15.28	0.00	819
39310	217	E	2015	2401521	TA	12/28/2020	N	R	46	DEF/REGEN/ 50 DIAGNOSTICS	804.16	582.74	26.35	0.00	1413
39310	217	E	2015	2402192	TA	02/10/2021	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	229.76	0.00	4.37	0.00	234
39310	217	E	2015	2402192	TA	02/10/2021	N	R	46	DEF/REGEN/ 23 TRAVEL	689.28	428.68	21.25	0.00	1139
39310	217	E	2015	2403378	TA	03/30/2021	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	516.96	0.00	9.82	0.00	527
39310	217	E	2015	2403378	TA	03/30/2021	N	R	46	DEF/REGEN/ 23 TRAVEL	1493.44	0.00	28.38	0.00	1522
39310	217	E	2015	2403378	TA	03/30/2021	N	R	46	DEF/REGEN/ 50 DIAGNOSTICS	229.76	0.00	4.37	0.00	234
39310	217	E	2015	2404510	TA	04/12/2021	N	R	46	DEF/REGEN/ 23 TRAVEL	459.52	0.00	8.73	0.00	468
39310	217	E	2015	2404510	TA	04/12/2021	N	R	46	DEF/REGEN/ 50 DIAGNOSTICS	229.76	0.00	4.37	0.00	234
39310	217	E	2015	2406376	TA	06/07/2021	N	R	46	DEF/REGEN/ 50 DIAGNOSTICS	0.00	1163.60	22.11	104.00	1290
39310	217	E	2015	2410471	TA	11/08/2021	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	114.88	0.00	2.18	0.00	117
39310	217	E	2015	2410471	TA	11/08/2021	N	R	46	DEF/REGEN/ 23 TRAVEL	459.52	0.00	8.73	0.00	468
39310	217	E	2015	2410471	TA	11/08/2021	N	R	46	DEF/REGEN/ 50 DIAGNOSTICS	0.00	744.19	21.58	0.00	766
39310	217	E	2015	2412737	TA	02/15/2022	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	180.80	0.00	5.24	0.00	186
39310	217	E	2015	2412737	TA	02/15/2022	N	R	46	DEF/REGEN/ 23 TRAVEL	6026.50	0.00	174.78	0.00	6201
39310	217	E	2015	2412737	TA	02/15/2022	N	R	46	DEF/REGEN/ 50 DIAGNOSTICS	361.59	0.00	10.49	0.00	372
39310	217	E	2015	2413555	TA	03/04/2022	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	241.06	0.00	6.99	0.00	248
39310	217	E	2015	2413555	TA	03/04/2022	N	R	46	DEF/REGEN/ 23 TRAVEL	184.22	0.00	3.50	0.00	188
39310	217	E	2015	2419638	TA	10/15/2022	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	307.03	0.00	5.83	0.00	313
39310	217	E	2015	2419638	TA	10/15/2022	N	R	46	DEF/REGEN/ 23 TRAVEL	1228.10	722.21	35.31	0.00	1986
39310	217	E	2015	2422619	TA	02/09/2023	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	368.43	0.00	7.00	0.00	375
39310	217	E	2015	2422619	TA	02/09/2023	N	R	46	DEF/REGEN/ 50 DIAGNOSTICS	0.00	109.55	1.87	0.00	111
39310	217	E	2015	2423206	TA	03/06/2023	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	368.43	0.00	7.00	0.00	375
39310	217	E	2015	2423206	TA	03/06/2023	N	R	46	DEF/REGEN/ 50 DIAGNOSTICS	245.62	0.00	4.67	0.00	250
39310	217	E	2015	2424205	TA	04/12/2023	N	R	46	DEF/REGEN/ 23 TRAVEL	122.81	0.00	2.33	0.00	125
39310	217	E	2015	2424205	TA	04/12/2023	N	R	46	DEF/REGEN/ 50 DIAGNOSTICS	614.05	0.00	11.67	0.00	626
39310	217	E	2015	2428417	TA	09/25/2023	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	368.43	0.00	7.00	0.00	375
39310	217	E	2015	2428417	TA	09/25/2023	N	R	46	DEF/REGEN/ 23 TRAVEL	245.62	0.00	4.67	0.00	250
39310	217	E	2015	2428895	TA	10/23/2023	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	614.05	0.00	11.66	0.00	626
39310	217	E	2015	2428895	TA	10/23/2023	N	R	46	DEF/REGEN/ 50 DIAGNOSTICS	786.12	78.09	17.28	0.00	881
39310	217	E	2015	2429901	TA	11/21/2023	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	393.06	0.00	7.86	0.00	401
39310	217	E	2015	2429901	TA	11/21/2023	N	R	46	DEF/REGEN/ 50 DIAGNOSTICS	65.51	0.00	1.31	0.00	67
39310	217	E	2015	2430457	TA	12/11/2023	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	393.06	0.00	7.86	0.00	401
39310	217	E	2015	2430457	TA	12/11/2023	N	R	46	DEF/REGEN/ 23 TRAVEL	655.10	0.00	13.10	0.00	668
39310	217	E	2015	2431461	TA	01/24/2024	N	R	46	DEF/REGEN/ 20 WEAR & TEAR					

Maint Costs Not Reduced by Mfr Warranty Recovery

Statewide Equipment Fleet

Closed WO Costs

For WOs Closed 07/01/2016 thru 01/30/2025

Asset	Cls	Dist	Mdl Yr	WO	Sh	Date Clsd	Bil WO?	Mnt Cls	Sys	Wrk Typ	Labr	Parts	Comdty	Vndr	Tot Cost
39310	217	E	2015	2431973	TA	02/12/2024	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	131.02	94.19	4.50	0.00	230
39310	217	E	2015	2431973	TA	02/12/2024	N	R	46	DEF/REGEN/ 50 DIAGNOSTICS	524.08	0.00	10.48	0.00	535
39310	217	E	2015	2436103	TA	07/21/2024	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	131.02	42.58	3.47	0.00	177
39310	217	E	2015	2437893	TA	10/22/2024	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	509.24	78.21	10.58	0.00	598
39310	217	E	2015	2437893	TA	10/22/2024	N	R	46	DEF/REGEN/ 23 TRAVEL	127.31	0.00	2.29	0.00	130
39310	217	E	2015	2437893	TA	10/22/2024	N	R	46	DEF/REGEN/ 50 DIAGNOSTICS	381.93	0.00	6.87	0.00	389
39310	217	E	2015	2439502	TA	12/09/2024	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	127.31	0.00	2.29	0.00	130
39310	217	E	2015	2439502	TA	12/09/2024	N	R	46	DEF/REGEN/ 23 TRAVEL	636.55	0.00	11.46	0.00	648
39310	217	E	2015	2439502	TA	12/09/2024	N	R	46	DEF/REGEN/ 50 DIAGNOSTICS	254.62	0.00	4.58	0.00	259
39310	217	E	2015	2440107	TA	01/12/2025	N	R	46	DEF/REGEN/ 20 WEAR & TEAR	127.31	32.93	2.88	0.00	163
39310	217	E	2015	2440107	TA	01/12/2025	N	R	46	DEF/REGEN/ 23 TRAVEL	445.59	0.00	8.02	0.00	454
39310	217	E	2015	2440107	TA	01/12/2025	N	R	46	DEF/REGEN/ 50 DIAGNOSTICS	127.31	0.00	2.29	0.00	130
Rpt Totals:							1 Assets				36654	8236	955	149	45993

Total life to date DEF related Cost at time of example $72699
Total life to date maintenance Cost at time of example $258072
Total life to date DEF related Cost at time of example 28%

This is only the Cost of parts and labor, it does not include the Cost of DEF, transporting equipment, or the duration of down time.

Maint Costs Not Reduced by Mfr Warranty Recovery

Outlook

FW: DEF Testimonials

From Bylsma, Brad J (DOT) <brad.bylsma@alaska.gov>
Date Tue 2/24/2026 1:26 PM
To Anderson, Ryan (DOT) <ryan.anderson@alaska.gov>
Cc Keith, Katherine M (DOT) <katherine.keith@alaska.gov>; DOT SEF Equipment Managers <dot.sef.equip.mgrs@alaska.gov>; White, Mike H (DOT) <mike.white@alaska.gov>

Commissioner, you may remember Chad Heller was an SEF mechanic and foreman before moving to M&O Superintendent; his perspective covers a lot of what our fleet maintenance managers have to say. Included below is an email from Danny Johnson, which expands on what Chad had provided. There are some conditions that are 'Alaska' and cold weather related that cause emissions issues, and there are also some specific M&O working conditions that can compound those issues as well.

Some other comments and thoughts- "DEF" refers to Diesel Exhaust Fluid, the liquid (basically urea) that is injected into the exhaust stream to treat and reduce exhaust gasses. Many times that term is used as proxy or synonymous with the entire emission and exhaust aftertreatment system on Tier IV engines. A more encompassing term would be "emissions and exhaust aftertreatment systems" which would include EGR (Exhaust Gas Recirculation) SCR (Selective Catalytic Reduction), DPF (Diesel Particulate Filter) systems and the use of DEF. While DEF is the consumable commodity that is often referred to, the maintenance issues attributed to DEF or DEF systems really refer to the entire emissions systems.

We are trying to find the source data that was presented to us by the Mack dealer at the SEF conference you opened for us a few years ago- the dealer stated that over 60% of the maintenance issues and repairs they performed for us were emissions system issues. This matches our own experience; the problems show up in many forms- check engine codes, engine derating or shutoff, failure of hard parts, DEF lines and heating elements, and many others.

We would look forward to additional conversation on this topic and any relief or exemptions that might be available that would allow the deletion or bypass of these systems.

Brad

From: Johnson, Danny J (DOT) <danny.johnson@alaska.gov>
Sent: Monday, February 23, 2026 6:32 PM
To: Bylsma, Brad J (DOT) <brad.bylsma@alaska.gov>
Subject: RE: DEF Testimonials

Chad hit all the points well, with the added value of former SEF perspective and insight.

Impacts on maintenance costs and operations have several influences not limited exclusively to the inconvenience of having SCR systems on equipment. Application specifically for how the equipment is used plays a large part in the problems we experience. for example, in Anchorage there are a lot of problems with Mack trucks going into a derate for NOx catalyst efficiency issues; this is not a problem with DEF, but the way the SCR system is intended to operate. Tier 4 engines are intended to run hot and for long durations to achieve a regeneration cycle, plow trucks here run low speeds, low RPM, and a lot of stop-and-go in the city. The result for us is

DEF crystallization buildup on the injection nozzle from low exhaust temperatures. The same truck in Soldotna or Fairbanks does not experience the same conditions because they get to run for continuous stretches and achieve the heat needed for a good regen. Oshkosh snow blowers have an emissions free blower engine because it is "off-highway", and an emissions compliant engine to drive the carrier because it is "on-highway". Emissions problems are rampant on these because in our snow haul application the carrier engine just idles along while loading trucks, never achieving the conditions needed for passive regeneration.
These issues on the road system are an inconvenience, but the same problems in rural Alaska can be catastrophic to communities where their lifeline to the rest of the world is dependent on a single piece of equipment which can derate into an unusable condition with little warning. The lead time for parts to repair can be up to 12 weeks in some cases depending on the failure and manufacturer, compounded by the logistics of getting to these communities to perform repairs.

- **DEF freeze and thaw in rural locations-** the impacts and problems caused by DEF freezing in equipment isn't exclusive to locations without heated SREB's. King Salmon has a heated facility but not enough space to keep all their critical equipment inside at the same time, they rotate which runway brooms get to be inside. This causes strain on the SCR heating systems by forcing more cycles on electronic coolant circulation valves to thaw the frozen DEF and exposing DEF-header units to continuous heat. This ties directly into increased maintenance costs; the coolant flow valves often fail to an open state and cook the sensitive level and quality sensors in the tank. What should be an uncommon repair, replacing an in-tank unit, has become almost a seasonal maintenance item in some areas due to SCR systems not being designed to function in truly harsh cold weather environments.

- **Storage of DEF and cost-** DEF needs to be handled and stored with very specific requirements for cleanliness to avoid contamination and equipment failure. Bulk totes are the most cost-effective option for fleets but that comes with contamination risk and repair/downtime cost; secondary transfer containers and transfer pumps need to be cleaned thoroughly, and frequently otherwise DEF crystallization will build in and on equipment as water evaporates. When these crystals are transferred into the DEF tank on a piece of equipment and dissolve into the fluid they will skew the concentration, 32.5% +/- 0.5%, and trigger derate conditions in equipment. Storage temperature is equally important, as condensation buildup in a bulk tank will also skew DEF concentration.

- **Sensitivity of the systems and codes which derate equipment-** SCR monitoring systems are incredibly precise and sensitive to even the slightest perceived deviation in emissions reduction (an example of sensitivity- Mack plow trucks with a winter front closed when ambient temperatures are slightly too warm will trigger a derate due to an ACM calculation discrepancy between an ambient air temp sensor in the grille, and monitored exhaust temperatures). Equipment does often does not give operators enough time when an issue or failure is detected to get to a shop before putting equipment into a severe inducement derate; this creates safety issues on roadways where equipment is no longer able to travel at an appropriate pace with traffic and becomes a slow moving hazard, and can leave rural airport equipment stranded in places where aircraft need to land.

- **Diagnostic issues-** equipment in rural communities where there is no immediate SEF presence experiences crippling failures due to SCR derate and lockout conditions. Iliamna Airport recently lost all ability to use their only loader for filling their sand truck due to a severity level 3 lockout. This was caused by operator error, but the error was simply the operator shutting the master switch off before the DEF pump was able to purge the lines. It's small mistakes that can cause large consequences to operations. I currently have another loader in Nikolai with the same issue, and with the challenges to find air travel to fit our needs we might not be able to get there for repair until the 4th of March. The repair

for this lockout condition is to use a laptop to exit lockout with a dealer passcode and run a SCR purge and verification test. Something that even if we sent out a laptop and with guidance from SEF staff, the average contractor will not be able to perform the steps to get their equipment back in service. A 30 minute repair becomes a $4,000.00 dollar charter and two days of lost time for a mechanic traveling.

Danny Johnson
District Manager, State Equipment Fleet
Alaska Department of Transportation & Public Facilities
Office: 907.269.5971 • Cell: 907.699.9560
Keep Alaska Moving

From: Bylsma, Brad J (DOT) <brad.bylsma@alaska.gov>
Sent: Monday, February 23, 2026 1:35 PM
To: Johnson, Danny J (DOT) <danny.johnson@alaska.gov>; Rivera, Jessie O (DOT) <jessie.rivera@alaska.gov>; Fischer, James A (DOT) <james.fischer@alaska.gov>; Ellingson, Jamie D (DOT) <jamie.ellingson@alaska.gov>; Wolfe, Timothy A (DOT) <tim.wolfe@alaska.gov>
Subject: FW: DEF Testimonials

Can you guys help me expand on this?

Brad

From: Anderson, Ryan (DOT) <ryan.anderson@alaska.gov>
Sent: Monday, February 23, 2026 11:27 AM
To: Bylsma, Brad J (DOT) <brad.bylsma@alaska.gov>
Subject: Re: DEF Testimonials

That's a nice quote!

From: Bylsma, Brad J (DOT) <brad.bylsma@alaska.gov>
Sent: Monday, February 23, 2026 11:26 AM
To: Anderson, Ryan (DOT) <ryan.anderson@alaska.gov>
Subject: RE: DEF Testimonials

DEF is the single highest cause of maintenance issues for diesel engines Will provide more later.

Brad

From: Anderson, Ryan (DOT) <ryan.anderson@alaska.gov>
Sent: Monday, February 23, 2026 11:20 AM
To: Bylsma, Brad J (DOT) <brad.bylsma@alaska.gov>
Subject: Fw: DEF Testimonials

Hey Brad - we are getting testimonials from M&O regarding DEF problems. Anything you want to throw in the mix? There is a bill in Congress to provide some relief, and Sullivans Office is asking for these. I'd need what you could put together by COB tomorrow.

Ryan

From: Sakalaskas, Jason (DOT) <jason.sakalaskas@alaska.gov>
Sent: Monday, February 23, 2026 11:14 AM
To: Mills, Andy J (DOT) <andy.mills@alaska.gov>
Cc: Anderson, Ryan (DOT) <ryan.anderson@alaska.gov>
Subject: FW: DEF Testimonials

Ok I believe this is the last one.

Jason Sakalaskas
Northern Region Maintenance & Operations Chief
Alaska Department of Transportation & Public Facilities
Office: 907-451-2214 • jason.sakalaskas@alaska.gov
Keep Alaska Moving

From: Heller, Chad M (DOT) <chad.heller@alaska.gov>
Sent: Monday, February 23, 2026 11:01 AM
To: Sakalaskas, Jason (DOT) <jason.sakalaskas@alaska.gov>; Davis, Ron (DOT) <ron.davis@alaska.gov>; Fischer, Joshua S (DOT) <joshua.fischer@alaska.gov>; Ludington, Jason R (DOT) <jason.ludington@alaska.gov>; Jennings, Sam R (DOT) <sam.jennings@alaska.gov>; Mattson, Robert A (DOT) <robert.mattson@alaska.gov>; Hubert, Geoffrey A (DOT) <geoffrey.hubert@alaska.gov>
Subject: RE: DEF Testimonials

The Tazlina District operates 31 pieces of equipment requiring DEF, including 16 trucks, 7 loaders, 2 graders, 2 tractors, 1 dozer, 2 distributor trucks, and 1 excavator. We use approximately 4,400 gallons of DEF annually at a cost of roughly $25,000 per year. However, the operational and indirect costs far exceed the cost of the fluid itself. We are consistently operating at approximately 30% below fleet capacity due to DEF-related failures and such failure account for around 70% of total down time. Attached is the LTD maintenance cost of DEF related problems of one truck. It does not include any transportation cost or down time cost. Just actual DEF related repair costs are 28% of the LTD maintenance cost.

Impacts include:

• **Freeze and thaw of DEF and impacts in rural locations** – DEF lines freeze, crack, and fail during winter conditions. In rural locations and SREB facilities where heat is not consistently available, equipment is more susceptible to DEF system failures. Two-week delays for replacement parts are common, leaving critical equipment out of service during winter operations.

• **Storage of DEF** – DEF storage consumes valuable shop space. We experience contamination concerns, disposal issues from empty DEF containers filling dumpsters, and logistical challenges maintaining proper storage temperatures.

• **Sensitivity of systems and derate codes** – DEF systems frequently trigger engine derates during snow events. Equipment loses power or becomes inoperable while actively plowing or sanding. This creates operational delays and can create hazardous conditions for operators working in remote areas.

• **Lack of consistent communications and diagnostic capability** – Many DEF-related codes cannot be reset without dealer-specific diagnostic software. In remote areas with limited connectivity, this

prevents timely troubleshooting and extends downtime.

• **Increased material and repair costs** – DEF lines and components can cost between $300 and $600 per line. Parts typically require up to two weeks to arrive adding to excessive down time.

• **Example** – Vehicle #39309 was down for one full year due to emissions system failures. The unit was transported over 500 miles by lowboy for repairs. During that time, we incurred $42,936 in operating and replacement costs, not including lost productivity, or cost of repairs.

These are not isolated incidents. DEF-related failures have created measurable financial strain, reduced fleet readiness, and operational risk in extreme winter environments. The cumulative impact affects our ability to safely maintain roads, respond to storms, and support emergency services in rural Alaska.

Chad Heller
Maintenance and Operations Supervisor
Tazlina Department of Transportation & PF
Mile 110 Richardson Hwy PO Box 7
Glennallen, Ak 99588
Ph: 907-822-3222
Cell: 907-259-3222
Email:chad.heller@alaska.gov

From: Sakalaskas, Jason (DOT) <jason.sakalaskas@alaska.gov>
Sent: Friday, February 20, 2026 10:08 AM
To: Davis, Ron (DOT) <ron.davis@alaska.gov>; Fischer, Joshua S (DOT) <joshua.fischer@alaska.gov>; Ludington, Jason R (DOT) <jason.ludington@alaska.gov>; Jennings, Sam R (DOT) <sam.jennings@alaska.gov>; Heller, Chad M (DOT) <chad.heller@alaska.gov>; Mattson, Robert A (DOT) <robert.mattson@alaska.gov>; Hubert, Geoffrey A (DOT) <geoffrey.hubert@alaska.gov>
Subject: DEF Testimonials

Gentleman,

I apologize for the short turn around, but I NEED testimonials for impact of DEF on our operations by MONDAY this next week February 23. This information is going to be provided to the Commissioners office of which they will use to supply Sullivan's office with the feedback. There is an ongoing push to better understand such impacts of the use of DEF in cold climates and look for ways to advocate for variances of its use again in cold climates. I know you all have a lot to say on this topic so now is your time to provide real world examples and testimony's of these actual impacts. Below are some items it have heard from all of you or staff on this subject but this is only provided to spur your thoughts:

- Freeze and thaw of DEF and impact to equipment in rural locations such as in our SREB's where heat is not always provided.
- Storage of DEF – contamination, waste generated from containers, etc.
- Sensitivity of the systems and codes which derate equipment. When, where, and how this impacts operations. Dangerous for operators in some remote areas.
- Lack of consistent communications at our shops making it difficult to reset codes and diagnose issues.
- Locations of such systems on equipment doesn't also for proper heating of the tank causing issues.
- Increased cost of the materials

And I am sure many more. Thanks again for you efforts on this request.

Jason Sakalaskas
Northern Region Maintenance & Operations Chief
Alaska Department of Transportation & Public Facilities
Office: 907-451-2214 • jason.sakalaskas@alaska.gov
Keep Alaska Moving

Testimonials on DEF from Industry in Alaska

From: John Innes <jinnes@colvilleinc.com>
Sent: Monday, February 23, 2026 4:40 PM
To: John Pike <jpike@colvilleinc.com>
Subject: First Hand Account

I am writing to share a firsthand account of the risks we face operating a fleet of late-model trucks equipped with DEF aftertreatment systems in Alaska's most extreme arctic weather events. These systems, while designed to meet emissions standards, can become critical failure points in severe cold. We recently experienced a situation where a driver was caught in a ground blow with zero visibility, as fine snow was driven into the truck's intake system, partially plugging the air filter and restricting airflow. This created extreme heat within the DPF system, nearly burning the truck to the ground while it was hooked to an empty 53-foot tanker. At the same time, the aftertreatment system suffered a 100% failure, causing the engine to derate and placing the truck in danger of complete shutdown. In subzero temperatures and high winds, a loss of power is not an inconvenience — it is a life-threatening emergency. A stranded truck in those conditions exposes a driver to frostbite, hypothermia, and potentially fatal consequences within a very short period of time.
Beyond the immediate danger to human life, these failures demand significant labor, equipment, and time to recover both truck and driver safely. Rescue operations in remote areas during extreme weather place additional personnel at risk and strain already limited infrastructure. We invest heavily in training and preparedness to protect our drivers and maintain our equipment, yet no amount of preparation can fully mitigate the mechanical vulnerability that DEF aftertreatment systems present in arctic environments. Our drivers are professionals who keep Alaska supplied through the harshest months of the year, and they deserve equipment that will not compromise their safety when conditions are at their worst.

John Innes
Senior Operations Manager
Colville Transport LLC, Fairbanks, and Valdez, AK
Office 907-374-7790 Ext 8807
Cell 907-590-0027

From: David Flood <david@minn-ak.com>
Sent: Monday, February 23, 2026 2:45:37 PM
To: Frederic Sifuentes <fsifuentes@bigdreamstransport.com>
Subject: Break downs

On or about 12/25
I had an issue of new DPF and SCr installed. At less then 300 miles there after scr went into default hence causing engine shut down 150mi from a service available. Driver had to catch a ride tosafe have. Hence having a $4,000 to bill and another repair at $12,000 Not to mention re power load and deliver. Driver hotel and compensation.

Sincerely David J. Flood
Vice President of sales
Minn-Alaska Tranport
O: 907-746-3950

From: Seth Kroenke <seth@remoteak.com>
Sent: Monday, February 23, 2026 12:32:29 PM
To: Frederic Sifuentes <fsifuentes@bigdreamstransport.com>
Subject: Cold Weather Diesel Reliability Act support

To Whom it may concern,

We 100% support the Cold Weather Diesel Reliability Act.

Since the inception of the mandated EPA emissions standards, we have been plagued with problem after problem with our diesel equipment. Because of these emission protocols, diesel engines are no longer reliable in Alaska and even beyond that, dangerous to our employee's and operators who rely on their machines for warmth and safety in below ZERO temperatures.

In 2020, we had an excavator at a remote mining location that went into limp mode so many times, we ended up just parking the machine, bringing it back in town, and returning it to the dealership.

In 2022, we sent 3 brand new Ford F350 diesel pickups to Prudhoe Bay. We have had to bring them all back from the slope because they cannot be safely operated in that environment. To my knowledge, nearly all diesel trucks on the slope have now been replaced with gas engines.

In 2024, we had a brand new Volvo loader in Prudhoe Bay, AK that would not not stay out of limp mode for more than 150 hours. The dealership finally ended up trading out the machine for a new machine, however the new machine emissions has the same set of problems.

I could go on with dozens of more examples, but please understand that the Cold Weather Diesel Reliability Act is critical to our employees safety and critical to supporting commerce within Alaska.

Thank you,

Seth Kroenke



Seth Kroenke
President

Website: www.remoteAK.com | **Main:** 907-406-4545: | **Mobile:** 907-227-5875

From: Chris Huffman <chris@blackgoldalaska.com>
Sent: Monday, February 23, 2026 12:00:53 PM
To: Frederic Sifuentes <fsifuentes@bigdreamstransport.com>
Subject: Def

One of our drivers was hauling north toward Prudhoe Bay on the Dalton Highway during active blowing snow conditions. Temperatures were below -45°F with wind gusts exceeding 60 mph.

The truck was brand new Peterbilt with less than 10,000 miles.

Near Atigun Pass, the truck derated

The engine power was reduced until the truck was limited to 25 MPH while grossing heavy weight in active storm conditions. Eventually, it would have reduced to 5 MPH.

At that speed:

- The truck cannot maintain traction on grades.
- It cannot safely clear avalanche-prone areas.
- It becomes an obstruction to other commercial traffic.
- It puts the driver at risk of freezing if stranded.

There is no cell service in most stretches of the Dalton. The driver had to use a satellite phone to call dispatch.

The truck remained idling in sub-zero wind chill conditions to prevent complete freeze-up.

The emissions system is designed for temperate climates. It does not account for Arctic conditions where:

- DEF can freeze despite heaters.
- Sensors fail in extreme cold.
- Drivers cannot simply “pull over and wait safely.”

Luckily another driver eventually came to the rescue and he survived, and as we have done country times the load was dropped and we paid a 15k town bill to get the truck back to Fairbanks. Such a waste of time and money and luckily no one was hurt.

Christopher Huffman
General Manager

Phone 907.490.3222 **Mobile** 907.347.9561
Web www.blackgoldalaska.com
Email chris@blackgoldalaska.com
1520 Sailor Court, North Pole, AK 99705

…

My name is Ty Calvin, and I serve as the Senior Manager of Fleet and Facilities for Span Alaska Transportation. I have spent the past six years supporting the reliability, safety, and performance of our equipment across some of the most demanding operating environments in the United States.

Span Alaska operates a modern, well-maintained fleet consisting of 106 in-service units, with an average model year of 2020. We invest heavily in preventative

maintenance, systematic inspections, and driver support programs to ensure our equipment meets both operational and regulatory expectations. Despite maintaining a young fleet and following strict maintenance protocols, Diesel Exhaust Fluid (DEF) and aftertreatment system issues remain the leading cause of unscheduled downtime for our vehicles.

Alaska's extreme climate is a significant contributor to these challenges. Winter temperatures across much of the state regularly reach levels at which DEF can freeze, crystallize, or chemically break down. These temperatures also affect the performance of sensors, heaters, pumps, and aftertreatment components — systems that were not originally engineered for prolonged exposure to arctic conditions. Even with late-model trucks and robust winterization procedures in place, DEF-related faults are among the most consistent reasons for vehicle derates, road calls, and emergency repairs.

For a fleet that supports local, long-distance, and remote deliveries, these failures carry real operational and safety implications. A truck disabled by a DEF or aftertreatment fault in sub-zero weather places the driver at increased risk and often requires extended recovery times due to distance, weather, and the limited availability of roadside support in the region. These delays also affect the communities we serve, many of which rely on timely and consistent delivery of essential goods.

To counter these conditions, our team employs comprehensive cold-weather protocols, insulated DEF handling systems, heater-supported storage, and meticulous maintenance practices. Even with these layered protections, DEF and aftertreatment issues continue to represent the single largest category of downtime across our 106-unit fleet. These issues occur regardless of equipment age, maintenance history, or driver behavior, underscoring the gap between standardized system design and the realities of operating in Alaska's extreme climate.

6128 Electron Drive
Anchorage, AK 99518
907-349-3606

Span Alaska remains committed to environmental responsibility and sound fleet management. Our operational experience simply reflects the unique environmental and logistical challenges associated with maintaining reliable transportation in the far north, where equipment is routinely pushed beyond the conditions assumed in typical system design.

Sincerely,

Ty Calvin |Sr Manager of Fleet & Facilities
Office - 907-349-3606 | Cell - 907-331-8430

To Whom It May Concern,

I am writing in support of the Cold Weather Diesel Reliability Act. Over the last 30 years, my career has been directly tied to the diesel engine industry, including 20 years with Cummins and Peterbilt, as well as serving as a general manager for an Alaska-based commercial carrier. This background has given me a unique perspective from both the service and repair side of diesel engine and truck manufacturing, and from the end-user side as a fleet operator.

Across all of these roles, my teams and I have supported eU'orts to reduce emissions and protect the environment. At the same time, we have seen firsthand the challenges customers face when emission-control system failures occur. Alaska—like many western states—has extreme environmental conditions that can turn a simple system fault into a life-threatening situation. When a truck derates, limits speed, or becomes inoperable in remote areas and severe cold, the driver's safety is immediately at risk. Unfortunately, our operators have experienced these failures too often in locations and weather conditions where a breakdown can quickly become dangerous.

From the service and repair standpoint, local diesel technicians have worked tirelessly to diagnose and correct these issues. Despite close collaboration with manufacturer engineers, we were frequently told that our operating conditions fall outside the environments these systems were designed for. Technicians often felt dismissed while trying to identify solutions. Even with diligent repair eU'orts and preventative measures, emission-system reliability problems persisted.

From the perspective of commercial carriers and operators, these systems have become increasingly unreliable, creating serious health and safety concerns. Carriers have also faced significant increases in purchase costs, maintenance expenses, and repair bills associated with newer emissions-controlled trucks. Many failures do not qualify for warranty coverage because no single component is identified as defective. In most cases,

the root cause is tied to the extreme weather and operating conditions. The resulting repair and towing costs—often exceeding $10,000 depending on the breakdown location—place an additional burden on carriers already operating in a high-cost region.

I strongly support this bill because it directly impacts the safety and well-being of drivers and the broader Alaskan trucking community.

Sincerely,

Paul S. Carson

General Manager

Wrightway Auto Carriers – Anchorage, AK

Trucking fleets operating in Alaska face many challenges unique to the arctic conditions in which we operate in. Between Fairbanks and the North Slope we are operating in one of the harshest climates on earth. Our long winter season begins in early October and stretches through the end of April. With limited to no daylight, ambient temperatures of -40F or more, windchills that can regularly reach between -60F and -80F, and often hundreds of miles from the nearest town. These environmental conditions introduce significant operational risks to both health and equipment safety.

The extreme cold freezes the DEF fluid, makes plastic connectors and components brittle and prone to breakage, and cold-soaks critical components. Drivers must leave their trucks idling overnight to maintain cab heat and ensure operational readiness but often wake up to find check engine lights, stop-engine warnings, and de-rated equipment because the aftertreatment system was unable to reach the necessary temperatures to complete a proper regeneration of the Diesel Particulate Filter. These types of faults require a shop with specialized software to rectify which is often not available in the areas they operate in.

These aftertreatment systems simply were not engineered properly to function in arctic conditions. Most of my career has been as a mechanic, and I have extensive experience maintaining these systems. More than once, I've found myself laid underneath a truck on the side of the road in the bitter cold, replacing a broken def pump that rendered the truck inoperable before it could make it back to the shop. While improvements have been made to these systems since inception, they are still far from adequate for operation in arctic climates. I would estimate that at least 30% of our equipment down-time is attributed to faults in these DEF systems.

Jordan Mattingley

STR Alaska

Director, Equipment and Maintenance

Concerns Regarding the Operation of Tier 4 Diesel Engines in Arctic and Sub-Arctic Conditions

Dear Members of Congress,

Thank you for your willingness to consider the significant operational challenges associated with Tier 4 diesel engines in Alaska, particularly under extreme Arctic and sub-Arctic conditions.

For nearly seven years, I have hauled freight across remote Alaska terrain using Pisten Bully snowcats—tracked vehicles specifically designed to safely transport freight and equipment over snow-covered terrain while maintaining reliable winter access. These machines provide essential services to Native villages and remote communities. Since the transition to Tier 4 engines, however, we have experienced persistent reliability and operability issues in extreme cold, particularly at temperatures below –30°F.

Our fleet now requires specialized diagnostic laptops to reset faults and maintain operation. These tools are not always accessible in field conditions, and when temperatures drop significantly, the machines frequently enter limp mode or experience shutdowns. Because many of our freight routes extend up to 400 miles, delays caused by equipment limitations can quickly become serious safety concerns.

During the past winter, we operated through approximately five weeks of sustained temperatures between –30°F and –40°F. In these conditions, stopping operations can present severe risks. At temperatures approaching –45°F to –50°F, diesel exhaust fluid (DEF) freezing becomes a critical concern. Rescue options are extremely limited, as helicopter search and rescue operations typically cannot fly in these weather conditions. Maintaining equipment operability is therefore essential for crew safety and mission success.

By comparison, our Tier 3 engines have demonstrated consistent reliability, operating effectively in temperatures as low as –70°F. While the use of Tier 4 engines is sometimes unavoidable, their performance in extreme cold remains a major concern. To compensate, we are required to carry

large volumes of DEF—often up to 250 gallons—which reduces space available for safety equipment, spare parts, and other critical supplies.

These machines are not only commercial assets but also lifelines for remote communities. For example, one village was close to running out of fuel for their generators that run the village during extreme weather, and our equipment was critical in delivering sufficient diesel to sustain a community of approximately 450 residents when air transport was not possible.

This winter, our Pisten Bully fleet has also supported major freight operations from Bethel to western coastal villages impacted by Typhoon Halong. We are currently hauling approximately 7,000,000 pounds of freight to assist in rebuilding efforts. Even in these southern coastal areas, temperatures of –30°F to –35°F remain common, creating ongoing operational challenges for Tier 4 machines. Because these routes are far from our primary base of operations, mechanical support is limited, making dependable machine performance essential for safety and efficiency.

Mechanical support requirements have increased substantially with Tier 4 equipment. Previously, one mechanic could maintain a fleet of four machines. Today, two mechanics are required to maintain operational readiness, particularly in extreme temperatures. Technicians must also have specialized training in DEF systems and computerized diagnostics, and field maintenance becomes more difficult when machines are dispersed across remote routes.

Operational logistics have changed significantly. Freight runs now require continuous management of DEF systems. In temperatures below –35°F, DEF tanks can only be filled to approximately 50% to reduce freezing risk, adding complexity to every operation. In addition, Tier 4 machines have proven less fuel-efficient in our environment, consuming an estimated 15–20% more diesel to move the same loads compared to Tier 3 engines.

The attached photos illustrate the terrain where we operate. On the North Slope, our routes

extend from Prudhoe Bay east to Point Thompson and west to Point Lay, including villages along the way. Additional routes extend from Bethel to western coastal communities. These are remote, high-risk environments where equipment reliability is directly tied to safety and community support.

The impacts of Tier 4 equipment extend beyond freight operations. Communities across Alaska rely on heavy equipment to plow and maintain roads. In many cases, a single Tier 3 machine must now be replaced by two Tier 4 machines due to increased downtime, raising operational costs and affecting the ability to keep roads open for daily commerce and emergency services.

I respectfully urge you to consider the safety, operational efficiency, and logistical realities faced by Alaskan operators and the communities that depend on consistent freight and fuel deliveries. Reliable equipment is essential to protecting both lives and infrastructure in extreme Arctic conditions.

Thank you for your time and attention to this matter.

Sincerely,

Jake Wise

Owner-Operator

907-299-3165

From: Kevin Lowery <benstowingak@gmail.com>
Sent: Saturday, February 21, 2026 2:07:32 PM
To: Frederic Sifuentes <fsifuentes@bigdreamstransport.com>
Subject: Bens Towing Technical Impact Statement

Dear Members of the Alaska Legislature,

On behalf of Ben's Towing, a heavy-duty recovery and wrecker service operating out of Fairbanks, we are submitting this technical impact statement regarding federally mandated diesel exhaust fluid (DEF) and after-treatment systems required under regulations of the Environmental Protection Agency.

Our company specializes in heavy recovery operations across Interior and Northern Alaska, including frequent dispatches to the Dalton Highway and other remote corridors. These are extreme Arctic operating environments where winter temperatures routinely reach -40°F and below, road surfaces are ice-bound for extended periods, and mechanical reliability is essential for survival.

In our line of work, dependability is not optional—it is critical. We regularly respond to disabled commercial vehicles along the Dalton Highway and other remote road systems where help may be hours away. When a semi-truck breaks down in these regions, drivers face extreme cold, isolation, limited communication, and the risk of frostbite or worse. A disabled vehicle on the roadway also creates significant traffic hazards and the risk of secondary collisions.

These failures are not isolated incidents. They have become a consistent and costly operational burden. After-treatment systems represent some of the highest maintenance and repair expenses faced by Alaska-based trucking companies and owner-operators. The downstream economic impact affects shippers, consumers, and nearly every sector dependent on freight movement.

1. Operational Failures in Arctic Conditions

Modern diesel engines equipped with Selective Catalytic Reduction (SCR), Diesel Particulate Filters (DPF), DEF dosing modules, NOx sensors, and related after-treatment components were engineered primarily for temperate climates. In Arctic conditions, we are experiencing:

* DEF crystallization and freezing despite heater systems

* DEF line failures and pump malfunctions

* NOx sensor faults triggered by temperature fluctuation

* Forced engine derates or shutdowns due to emissions fault codes

* Increased DPF regeneration failures due to extended idle time in subzero temperatures

When these systems register faults, engines often enter a power-reduction (derate) mode or complete shutdown. In heavy recovery operations, loss of horsepower or forced shutdown is not merely inconvenient—it can render a wrecker incapable of safely performing a recovery.

2. Incident-Based Operational Impact

We have experienced multiple incidents where:

* A heavy wrecker en route to a disabled semi entered derate mode due to an emissions fault, forcing us to dispatch a secondary unit hours later.

* A recovery vehicle operating in remote territory experienced DEF system failure, delaying assistance to a stranded commercial driver in subzero temperatures.

* A semi-truck disabled by a DEF-related shutdown required recovery hundreds of miles from the nearest service center, exposing the driver to extended cold-weather risk.

When a truck breaks down in remote Alaska, response times can already exceed several hours. When our own recovery units fail because of emissions system malfunctions, the delay compounds. This directly increases the risk of frostbite, exposure injury, secondary traffic collisions, and logistical disruption along critical freight routes.

3. System Design vs. Arctic Reality

The design parameters of DEF and after-treatment systems do not align with:

* Sustained Arctic cold exposure

* Continuous vibration from frost-heaved and gravel road systems

* Extended idling required for operator safety in extreme cold

* Long-distance remote operations without dealership or diagnostic access

These conditions are not occasional—they define daily operations in Alaska. Equipment that functions reliably in the Lower 48 is experiencing disproportionate failure rates here.

4. Broader Infrastructure and Economic Consequences

The increased frequency of emissions-related breakdowns has:

* Increased the number of disabled commercial vehicles statewide

* Increased the number of heavy recovery deployments

* Raised freight costs for Alaska businesses and consumers

* Increased maintenance burdens on small owner-operators

* Introduced additional safety exposure for roadside responders

As a company responsible for emergency heavy recovery, our inability to reach stranded motorists due to our own emissions-related breakdowns presents a serious public safety concern.

Alaska’s environment is unlike anywhere else in the United States. Equipment engineered for temperate climates is being required to function in extreme Arctic conditions for which it was never designed. The result is reduced reliability in industries where reliability directly correlates with public safety.

Thank you for your attention to this critical issue affecting Alaska’s transportation safety and infrastructure reliability.

Respectfully,

Kevin Lowery

Ben’s Towing

Fairbanks, Alaska



Kevin Lowery
Towing Operations Supervisor
360 East Van Horn Road
Fairbanks, Alaska 99701
Main 907-452-7757
Cell 907-712-4057

2/20/2026

Operational and Safety Impacts of Federal Emissions Standards in Alaska

To whom it may concern,

Cruz Construction is an Alaskan Heavy Civil contractor deeply involved with arctic construction and resource

development on the North Slope of Alaska. We fully recognize the importance of environmental stewardship, and

contrary to public opinion, we are held to the highest environmental and safety standards when operating on the

North Slope of Alaska. Historically, heavy equipment used in arctic construction and resource development was

known for durability and mechanical simplicity, allowing operators and mechanics to maintain functionality even in

harsh environments with limited support infrastructure. Recent generations of emissions-controlled equipment have

introduced significant reliability challenges, particularly in remote, cold-weather applications where conditions

differ substantially from those assumed during equipment design and regulatory development. The unintended

operational, economic, and safety burdens created by current federal emissions standards are almost beyond

comprehension.

Cruz Construction often operates hundreds of miles from major service centers with limited access to vendor

technicians, replacement parts, or diagnostic resources. Seventy percent of the breakdowns we experience with new

equipment are emission system failures. That correlates to an over two hundred and thirty percent increase in

equipment breakdowns. To keep pace with emissions standards introduced in the early 2000’s, manufacturers have

produced machines better suited for running in a laboratory than a construction site. With extremely tight tolerances

and specialty manufacturing, parts can be unavailable for weeks or sometimes months. The biggest losers of all this

are the end users of the equipment. Us, the Alaskan Contractors.

Equipment failures in remote Alaska introduce real safety risks to personnel. Our people are exposed to dangerous

weather conditions while awaiting repairs and going on recovery expeditions. This has become a painfully common

part of our work since field repair of the emissions systems is sometimes not possible. Vendor support has not kept

pace with the increased technical complexity of modern emissions systems. Limited availability of trained

technicians, long lead times for specialized parts, and the difficulty of remote diagnostics further exacerbate

operational risks.

We respectfully ask policymakers to consider the unique realities of arctic operations when developing and

enforcing emissions standards. Specifically, the 2007 EPA emissions standard for on-highway engines and the Tier

3 EPA emission standard for off-highway engines have handicapped Alaskan Contractors. Potential considerations

may include:

 Increased flexibility or exemptions for certain equipment categories operating in Arctic conditions.

 Collaboration with industry stakeholders to assess real-world reliability and safety impacts.

 Incentives for manufacturers to design emissions solutions specifically suited for extreme environments.

Alaskan contractors are committed to balancing environmental responsibility with operational safety and economic

sustainability, but with the current, unrealistic standards, we are failing.

I implore you to consider repeals or exemptions of these EPA standards until such a time when modern equipment

can show equal or greater reliability to that of the older generations.

Respectfully,

Randall Norman

Vice President, Cruz Construction, Inc.

(907) 355-3147

rnorman@cruzconstruct.com

To Whom It May Concern,

I am writing to summarize the ongoing repair and operational challenges our company has experienced with

modern heavy-duty emissions systems in Alaska, and the resulting impacts on safety, workforce stability, and

the communities we serve.

From a business perspective, as the General Manager of an Alaska-based trucking company, emissions

system failures have had direct and far-reaching consequences not only for our organization, but for the

communities we serve as trucks are the primary lifeline for groceries, medical supplies, and other essential

goods. When emissions systems disable otherwise mechanically sound trucks, the result is extended

downtime, disrupted freight movement, and significant expense. Additionally, parts such as sensors, control

modules, and dosing components are frequently backordered or unavailable, and dealerships are often

overwhelmed. In some cases, we have resorted to locating used components from salvage sources simply to

restore limited operability. The cumulative impact of downtime, lost revenue, increased labor and training

costs, and supply chain disruption creates substantial instability in an environment where reliability is

critical.

These challenges also aU’ect workforce retention. Companies operating older rebuilt or glider kit trucks

equipped with pre-emissions engines hold a hiring advantage because drivers perceive those units as more

reliable in Arctic conditions. When trucks are repeatedly sidelined for emissions-related diagnostics or parts

delays, drivers lose miles and income, making recruitment and retention increasingly diU'icult.

From a driver's perspective, I personally operated a brand-new truck that began experiencing emissions

failures within the first months of service. Despite multiple service visits, no clear root cause was identified.

The truck would generate conflicting fault codes and ultimately shut itself down. Though it was equipped

from the factory with a shutdown override switch, the override would only delay the shutdown briefly before

requiring repeated manual activation. I was forced to operate the vehicle with constant alarms and warning

indicators simply to reach a safe location, while constantly resetting the shutdown override.

On occasion, the truck would shut down while climbing a grade. Restarting a loaded truck on a hill after a loss

of power is extremely diU'icult and at times resulted in loss of traction and the vehicle beginning to slide

backward down an icy grade. The road conditions were otherwise manageable until the emissions-triggered

shutdown created the hazard. A dealership technician later accompanied me on a Prudhoe Bay trip with

diagnostic equipment connected, yet no immediate solution was identified, and multiple components were

replaced over the following year in attempts to resolve the issue.

We have also experienced emissions-related shutdowns in temperatures reaching 40 to 50 below zero,

requiring equipment to be left on the roadside to prioritize operator safety. These are not isolated incidents

but recurring challenges under Arctic operating conditions.

We remain committed to maintaining compliant equipment and operating responsibly. However, the current

regulatory framework does not adequately account for extreme northern environments. When emissions

systems override otherwise reliable equipment due to harsh conditions, the result is compromised safety,

disrupted commerce, and operational instability.

Respectfully,

Suny Campbell

Big Dreams Transport

Sourdough Express

600 Driveway Street

Fairbanks, Alaska 99701

Phone: (907) 243-2545

Email: jnorum@sourdoughexpress.com

February 22, 2026

To whom it may concern,

I am writing to you as Josh Norum, President of Sourdough Express, a fifth-generation, family-owned trucking company that has provided essential freight services across Alaska since 1898. With terminals in Anchorage, Fairbanks, and Soldotna, our fleet operates daily on routes from Homer to Prudhoe Bay and everywhere in between. We are proud to be one of Alaska's oldest and most reliable transportation partners, moving critical supplies that keep our communities, industries, and national defense infrastructure functioning in one of the harshest environments on Earth.

I respectfully bring to your attention the severe, ongoing challenges that current federal EPA emissions regulations—specifically those governing Diesel Particulate Filters (DPF) and Selective Catalytic Reduction (SCR) systems that rely on Diesel Exhaust Fluid (DEF)—

create for our operations in Alaska's Arctic and sub-Arctic conditions. These one-size-fits-all standards, while well-intentioned for milder climates, are simply not designed for the

extreme cold we face for much of the year.

In temperatures routinely dropping to -40°F and lower (well below the 12°F freezing point of DEF), our trucks experience frequent and predictable failures:

• DEF systems fail to thaw adequately despite built-in heaters, triggering EPA-mandated derates, limp-mode restrictions, or complete engine shutdowns even

when the engine itself is operating normally.

• DPF units cannot achieve the high exhaust temperatures needed for proper regeneration in cold ambient conditions or during low-speed/idle operations common in our remote routes, resulting in rapid clogging, forced regens that consume excessive fuel, and premature filter failures.

These issues translate directly into:

• Increased operating costs — dramatically higher maintenance, parts replacement, and downtime expenses that we ultimately pass along to Alaskan businesses and residents in the form of elevated freight rates.

• Unreliable equipment — regular, unscheduled breakdowns that disrupt time-sensitive deliveries of fuel, food, medical supplies, and construction materials to

isolated communities.

• Serious safety risks to our drivers — vehicles becoming stranded on remote highways such as the Dalton Highway in life-threatening sub-zero conditions, exposing drivers to hypothermia, frostbite, and delayed emergency response.

This is not a theoretical problem—it is a daily reality that threatens both public safety and the economic lifeline of our state.

We strongly support the Cold Weather Diesel Reliability Act (S. 3135). This common-sense legislation would direct the EPA to authorize manufacturers to suspend derate and

shutdown functions during prolonged cold weather and provide year-round exemptions from DEF system requirements for vehicles operating primarily north of 59° N latitude or in conditions where DEF use is impractical—precisely the circumstances we face every winter.

This issue has brought much-needed attention to the unique logistical and safety challenges of operating in Alaska's extreme Arctic and sub-Arctic conditions. On behalf of our drivers, mechanics, and the thousands of Alaskans who depend on reliable trucking, I urge you to support the Cold Weather Diesel Reliability Act (S. 3135 in the Senate and H.R. 6250 in the House) and to help ensure its swift passage through Congress at the earliest opportunity. We would be pleased to provide real-world data, maintenance records, or arrange a site visit to our facilities so your staff can see these challenges firsthand.

Thank you for your continued commitment to practical, Alaska-specific solutions that protect lives, support our economy, and strengthen national security without compromising long-term environmental goals. I look forward to your leadership in resolving this critical issue.

Sincerely,

Josh Norum

President

Sourdough Express

jnorum@sourdoughexpress.com

Concerns Regarding the Operation of Tier 4 Diesel Engines in Arctic and Sub-Arctic Conditions

Dear Members of Congress,

Thank you for your willingness to consider the significant operational challenges associated with Tier 4 diesel engines in Alaska, particularly under extreme Arctic and sub-Arctic conditions.

For nearly seven years, I have hauled freight across remote Alaska terrain using Pisten Bully snowcats—tracked vehicles specifically designed to safely transport freight and equipment over snow-covered terrain while maintaining reliable winter access. These machines provide essential services to Native villages and remote communities. Since the transition to Tier 4 engines, however, we have experienced persistent reliability and operability issues in extreme cold, particularly at temperatures below –30°F.

Our fleet now requires specialized diagnostic laptops to reset faults and maintain operation. These tools are not always accessible in field conditions, and when temperatures drop significantly, the machines frequently enter limp mode or experience shutdowns. Because many of our freight routes extend up to 400 miles, delays caused by equipment limitations can quickly become serious safety concerns.

During the past winter, we operated through approximately five weeks of sustained temperatures between –30°F and –40°F. In these conditions, stopping operations can present severe risks. At temperatures approaching –45°F to –50°F, diesel exhaust fluid (DEF) freezing becomes a critical concern. Rescue options are extremely limited, as helicopter search and rescue operations typically cannot fly in these weather conditions. Maintaining equipment operability is therefore essential for crew safety and mission success.

By comparison, our Tier 3 engines have demonstrated consistent reliability, operating effectively in temperatures as low as –70°F. While the use of Tier 4 engines is sometimes unavoidable, their performance in extreme cold remains a major concern. To compensate, we are required to carry large volumes of DEF—often up to 250 gallons—which reduces space available for safety equipment, spare parts, and other critical supplies.

These machines are not only commercial assets but also lifelines for remote communities. For example, one village was close to running out of fuel for their generators that run the village during extreme weather, and our equipment was critical in delivering sufficient diesel to sustain a community of approximately 450 residents when air transport was not possible.

This winter, our Pisten Bully fleet has also supported major freight operations from Bethel to western coastal villages impacted by Typhoon Halong. We are currently hauling approximately 7,000,000 pounds of freight to assist in rebuilding efforts. Even in these southern coastal areas, temperatures of –30°F to –35°F remain common, creating ongoing operational challenges for Tier 4 machines. Because these routes are far from our primary base of operations, mechanical support is limited, making dependable machine performance essential for safety and efficiency.

Mechanical support requirements have increased substantially with Tier 4 equipment. Previously, one mechanic could maintain a fleet of four machines. Today, two mechanics are required to maintain operational readiness, particularly in extreme temperatures. Technicians must also have specialized training in DEF systems and computerized diagnostics, and field maintenance becomes more difficult when machines are dispersed across remote routes.

Operational logistics have changed significantly. Freight runs now require continuous management of DEF systems. In temperatures below –35°F, DEF tanks can only be filled to approximately 50% to reduce freezing risk, adding complexity to every operation. In addition, Tier 4 machines have proven less fuel-efficient in our environment, consuming an estimated 15–20% more diesel to move the same loads compared to Tier 3 engines.

The attached photos illustrate the terrain where we operate. On the North Slope, our routes extend from Prudhoe Bay east to Point Thompson and west to Point Lay, including villages along the way. Additional routes extend from Bethel to western coastal communities. These are remote, high-risk environments where equipment reliability is directly tied to safety and community support.

The impacts of Tier 4 equipment extend beyond freight operations. Communities across Alaska rely on heavy equipment to plow and maintain roads. In many cases, a single Tier 3 machine must now be replaced by two Tier 4 machines due to increased downtime, raising operational costs and affecting the ability to keep roads open for daily commerce and emergency services.

I respectfully urge you to consider the safety, operational efficiency, and logistical realities faced by Alaskan operators and the communities that depend on consistent freight and fuel deliveries. Reliable equipment is essential to protecting both lives and infrastructure in extreme Arctic conditions.

Thank you for your time and attention to this matter.

Sincerely,

Jake Wise
Owner-Operator
907-299-3165



Dear Members of Congress,

As a retired Operating Engineer from Local 302 with 35 years of experience operating heavy equipment in Alaska, I have extensive firsthand knowledge of equipment performance in extreme environments. Over my career, I operated a wide range of equipment, including Volvo A45 articulated rock trucks, Volvo L220 and L180 wheel loaders, and an excavator that mechanics were ultimately unable to keep operating reliably and had to be returned. Across this equipment, diesel exhaust fluid (DEF) systems were a recurring source of operational failures. Machines frequently entered reduced-power (limp) mode and, at times, would not restart for extended periods—sometimes up to a week. Even after being returned to service, they often operated only briefly before faulting again and becoming inoperable. These problems occurred during summer months as well, demonstrating that DEF-related reliability issues are not limited to winter conditions but become significantly more critical in Arctic environments. Based on both personal experience and discussions with mechanics and other operators, many in the field believe it is more practical and cost-effective to rebuild pre-DEF equipment rather than invest in new DEF-dependent machines due to ongoing reliability concerns.

In my current role as President of the Petersville Community Non-Profit Corporation, we operate two Tier 4 Pisten Bully snowcats that require additional operational procedures, including managing DEF fluid to prevent solidification at approximately 12°F. These machines also require extremely high DEF consumption rates during operations, creating additional logistical and operational burdens in remote areas where resupply is limited. In addition, they consume significantly more diesel fuel than our Tier 3 snowcat, reducing efficiency and increasing operating costs. By contrast, our Tier 3 equipment has proven highly reliable in Arctic conditions and operates with substantially better fuel efficiency.



Based on decades of field experience, I believe equipment policy decisions affecting Arctic operations must account for real-world reliability, safety risks, and the operational realities faced by those working in remote Alaska environments.

Happy Trails!

Michele Stevens

President Petersville Community NPC

Outlook

Fwd: Emission systems using DEF fluid

From Petersville Community Non-Profit <petersvillecommunitynpc@gmail.com>
Date Wed 2/25/2026 12:46 PM
To Anderson, Ryan (DOT) <ryan.anderson@alaska.gov>; Fsifuentes@bigdreamstransport.com <Fsifuentes@bigdreamstransport.com>

You don't often get email from petersvillecommunitynpc@gmail.com. Learn why this is important

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---------- Forwarded message ---------
From: **Robert Skaats** <rskaats@icloud.com>
Date: Tue, Feb 24, 2026 at 11:22 PM
Subject: Emission systems using DEF fluid
To: Michele Stevens <petersvillecommunitynpc@gmail.com>

Robert Skaats
Owner, Extreme Excavating LLC
Mechanic & Heavy Equipment Operator
Chugiak, Alaska

02-24-26

Subject: Safety and Reliability Concerns Regarding Emissions Systems in Extreme Cold Environments

To Whom It May Concern,

My name is Robert Skaats. I am the owner of Extreme Excavating LLC based out of Chugiak, Alaska. I am also a mechanic and heavy equipment operator for the Petersville Community Nonprofit, where I help maintain and groom over 80 miles of trails in Petersville, Alaska.

I have worked in the construction industry for over 30 years as both a mechanic and heavy equipment operator. Throughout my career, I have operated and maintained a wide range of equipment, including excavators, dozers, loaders, graders, semi-trucks, dump trucks, and personal vehicles. This hands-on experience has given me a clear understanding of how emissions systems have evolved—and how they perform in real-world conditions.

While the intent behind modern emissions systems is understood, their reliability and

safety in extreme cold environments raise serious concerns.

When diesel particulate filter (DPF) systems were introduced, they required engines to automatically increase RPM—often up to 2,500 RPM—to generate the heat necessary to burn off soot buildup. This process increases fuel consumption and produces strong exhaust odors that can enter equipment cabs, at times causing nausea and forcing operators to stop work to ventilate. In addition, these systems are prone to sensor failures, increasing maintenance costs and equipment downtime.

The addition of diesel exhaust fluid (DEF) systems has created even greater challenges. DEF freezes at approximately 12°F, which makes it extremely difficult to manage in Alaska's subzero conditions. Tanks cannot be filled beyond approximately three-quarters capacity due to expansion of more than 7%

when frozen, which can crack tanks and damage sensors and pickup tubes.

As both a mechanic and operator, I have personally experienced multiple situations where emissions system failures have left me stranded 30 to 50 miles from civilization in temperatures as low as -30°F while operating a snowcat. These incidents often occur in remote terrain, including canyons and valleys, where there is no cellular service or internet access. In response, we have had to install Starlink satellite internet systems in our equipment simply to maintain the ability to contact technicians or emergency services.

The operational burden of DEF systems is significant. The fluid must be stored indoors to prevent freezing and frequently transferred between containers before it can be used, which is both time-consuming and inefficient. More importantly, system failures can trigger engine derates or complete shutdowns, placing operators in dangerous and

potentially life-threatening situations, especially when working alone in remote areas.

There are also serious public safety concerns. If a semi-truck or dump truck enters limp mode while traveling on icy roads—particularly when navigating corners—the sudden loss of power can create a high risk of accidents, which could result in serious injury or loss of life.

Based on my decades of experience as a mechanic and operator, I believe these emissions systems—particularly those involving DEF—are not adequately designed for extreme cold-weather operations. They are costly, unreliable under these conditions, and introduce safety risks that must be addressed.

I respectfully urge legislators, regulators, and manufacturers to recognize the unique challenges faced in remote and extreme

environments like Alaska. Consideration should be given to cold-climate exemptions, improved system design standards, or operational flexibility to ensure both safety and reliability.

Thank you for your time and for your attention to this important issue.

Sincerely,
Robert Skaats
Owner, Extreme Excavating LLC
Mechanic & Heavy Equipment Operator

Sent from my iPhone

Outlook

Arctic Operating Conditions and the need for DEF flexibility above the 59th Parallel

From Roger Brown <roger@middleforkinc.com>
Date Thu 2/26/2026 11:14 AM
To Frederic Sifuentes <fsifuentes@bigdreamstransport.com>; Anderson, Ryan (DOT) <ryan.anderson@alaska.gov>
Cc Thomas, Jody K (DOT) <jody.thomas@alaska.gov>

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

Commissioner Anderson,

I'm reaching out to share a recurring operational and public-safety issue we are experiencing with modern emissions-equipped trucks operating in Arctic conditions, and to ask for your help in exploring a path toward regulatory or administrative flexibility for vehicles working above the 59th parallel.

This is not a matter of convenience or an attempt to avoid emissions compliance. It is a reliability and safety problem that is having real impacts on fuel delivery, energy security, food, and the cost of living in Alaska.

As you know, DEF systems were engineered around Lower 48 duty cycles - frequent shutdowns, ready access to heated facilities, dealer support, and short distances between services. Those assumptions do not exist on the Dalton Highway or in most of northern Alaska. We routinely operate in sustained temperatures of –20°F to –40°F, with 300–500 mile stretches that have no parts availability, no diagnostic capability, and no safe place to park a disabled or hazmat load.

In those conditions, DEF freezes and crystallizes despite winterization measures. Sensors read inaccurately, the system attempts to dose when a temperature inversion briefly tricks the truck into thinking it is warm enough, and the pump burns up. The result is an automatic derate that cannot be resolved in the field.

Recently we had a truck leave an LNG trailer in Coldfoot after a DEF-related derate. The driver spent half a day attempting to remedy the issue before having to bobtail six hours back to town. A second truck had to remain with the hazmat trailer for safety. That single DEF failure delayed one load by two days and another by three to four days while we dispatched additional equipment and personnel to recover the trailer. The disabled truck then required multiple days just to thaw before it could be inspected - and if it goes to a dealer under warranty, the standard troubleshooting sequence typically keeps it out of service for a week or more before the failed pump is finally replaced.

This happens multiple times per year, per truck. When you multiply that across a fleet, you end up with extremely expensive, modern equipment that can spend a significant portion of the winter either derated on the side of the road, staged waiting for recovery, or sitting in line at a shop. In the meantime, fuel and energy deliveries to Interior and rural Alaska are delayed,

additional trucks are dispatched, and total emissions increase due to idling, recovery trips, and re-handling of loads.

In the Arctic, a DEF derate is not an inconvenience - it is a life-safety event and a supply-chain disruption.

These trucks are not hauling consumer goods. They are moving LNG for Interior energy, fuel for communities, and freight that supports resource development and critical infrastructure. Reliability in this environment directly affects energy cost, project timelines, and the resilience of the state's supply chain.

We are not asking to remove emissions controls. We are asking to work with the State, our congressional delegation, and the appropriate federal agencies to explore an Arctic-appropriate compliance pathway - whether that is a geographically limited exemption, an extreme-cold operational provision, or another alternative that maintains the intent of the emissions program without creating recurring mechanical failures and safety risks.

Alaska is unique in both climate and logistics, and this is a situation where a one-size-fits-all national standard is producing the opposite of its intended outcome.

I would appreciate the opportunity to sit down with you or your team to walk through the operational realities, the cost impacts, and the safety considerations in more detail, and to discuss how the State of Alaska might help lead a constructive conversation with EPA and our federal partners on a workable solution.

Thank you for your time and for your continued focus on keeping Alaska's transportation and energy corridors reliable.

Thank you

Roger Brown
General Manager
Middle Fork Logistics LLC

C: 907.855.9047
O: 907.987.4715
F: 855.300.4888
E: roger@middleforklogistics.biz
A: 724 30th Ave, Fairbanks, AK 99701



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Outlook

FW: DEF

From Thomas, Jody K (DOT) <jody.thomas@alaska.gov>
Date Thu 3/5/2026 11:08 AM
To Anderson, Ryan (DOT) <ryan.anderson@alaska.gov>
Cc Tessen, Danielle R (DOT) <danielle.tessen@alaska.gov>

I believe we have most of this from Freddie but wanted to make sure all information is captured.

Thank you,
Jody Thomas
Special Project Liaison
Commissioner's Office
(907)322-4141

From: Jamie Benson <jamie@aktrucks.org>
Sent: Wednesday, March 4, 2026 2:08 PM
To: Thomas, Jody K (DOT) <jody.thomas@alaska.gov>
Subject: Fw: DEF

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Here is one response

Jamie Benson
President/CEO
Alaska Trucking Association

907-230-6023

From: John Pike <jpike@brooksrangesupply.com>
Sent: Wednesday, March 4, 2026 1:39 PM
To: Jamie Benson <jamie@aktrucks.org>
Subject: DEF

Jamie and Corn,

This is what John and I put together for Juneau and Freddie.

I'm writing to share a firsthand account of the risks we face operating a fleet of late-model trucks equipped with DEF aftertreatment systems in Alaska's most extreme arctic weather events. These systems, while designed to meet emissions standards, can become critical failure points in severe cold. We recently experienced a situation where a driver was caught in a ground blow with zero visibility, as fine snow was driven into the truck's intake system, partially plugging the air filter and restricting airflow. This created extreme heat within the DPF system, nearly burning the truck to the ground while it was hooked to an empty 53-foot tanker. At the same time, the aftertreatment system suffered a 100% failure, causing the engine to derate and placing the truck in danger of complete shutdown. In subzero temperatures and high winds, a loss of power is not an inconvenience — it is a life-threatening emergency. A stranded truck in those conditions exposes a driver to frostbite, hypothermia, and potentially fatal consequences within a very short period of time.

Beyond the immediate danger to human life, these failures demand significant labor, equipment, and time to recover both truck and driver safely. Rescue operations in remote areas during extreme weather place additional personnel at risk and strain already limited infrastructure. We invest heavily in training and preparedness to protect our drivers and maintain our equipment, yet no amount of preparation can fully mitigate the mechanical vulnerability that DEF aftertreatment systems present in arctic environments. Our drivers are professionals who keep Alaska supplied through the harshest months of the year, and they deserve equipment that will not compromise their safety when conditions are at their worst.

John Innes
Senior Operations Manager
Colville Transport LLC, Fairbanks, and Valdez, AK
Office 907-374-7790 Ext 8807
Cell 907-590-0027

Dear Members of the Alaska Legislature,

On behalf of Ben's Towing, a heavy-duty recovery and wrecker service operating out of Fairbanks, we are submitting this technical impact statement regarding federally mandated diesel exhaust fluid (DEF) and after-treatment systems required under regulations of the Environmental Protection Agency.

Our company specializes in heavy recovery operations across Interior and Northern Alaska, including frequent dispatches to the Dalton Highway and other remote corridors. These are extreme Arctic operating environments where winter temperatures routinely reach -40°F and below, road surfaces are ice-bound for extended periods, and mechanical reliability is essential for survival.

In our line of work, dependability is not optional—it is critical. We regularly respond to disabled commercial vehicles along the Dalton Highway and other remote road systems where help may be hours away. When a semi-truck breaks down in these regions, drivers face extreme cold,

isolation, limited communication, and the risk of frostbite or worse. A disabled vehicle on the roadway also creates significant traffic hazards and the risk of secondary collisions.

These failures are not isolated incidents. They have become a consistent and costly operational burden. After-treatment systems represent some of the highest maintenance and repair expenses faced by Alaska-based trucking companies and owner-operators. The downstream economic impact affects shippers, consumers, and nearly every sector dependent on freight movement.

1. Operational Failures in Arctic Conditions

Modern diesel engines equipped with Selective Catalytic Reduction (SCR), Diesel Particulate Filters (DPF), DEF dosing modules, NOx sensors, and related after-treatment components were engineered primarily for temperate climates. In Arctic conditions, we are experiencing:

* DEF crystallization and freezing despite heater systems

* DEF line failures and pump malfunctions

* NOx sensor faults triggered by temperature fluctuation

* Forced engine derates or shutdowns due to emissions fault codes

* Increased DPF regeneration failures due to extended idle time in subzero temperatures

When these systems register faults, engines often enter a power-reduction (derate) mode or complete shutdown. In heavy recovery operations, loss of horsepower or forced shutdown is not merely inconvenient—it can render a wrecker incapable of safely performing a recovery.

2. Incident-Based Operational Impact

We have experienced multiple incidents where:

* A heavy wrecker en route to a disabled semi entered derate mode due to an emissions fault, forcing us to dispatch a secondary unit hours later.

* A recovery vehicle operating in remote territory experienced DEF system failure, delaying assistance to a stranded commercial driver in subzero temperatures.

* A semi-truck disabled by a DEF-related shutdown required recovery hundreds of miles from the nearest service center, exposing the driver to extended cold-weather risk.

When a truck breaks down in remote Alaska, response times can already exceed several hours. When our own recovery units fail because of emissions system malfunctions, the delay compounds. This directly increases the risk of frostbite, exposure injury, secondary traffic collisions, and logistical disruption along critical freight routes.

3. System Design vs. Arctic Reality

The design parameters of DEF and after-treatment systems do not align with:

* Sustained Arctic cold exposure

* Continuous vibration from frost-heaved and gravel road systems

* Extended idling required for operator safety in extreme cold

* Long-distance remote operations without dealership or diagnostic access

These conditions are not occasional—they define daily operations in Alaska. Equipment that functions reliably in the Lower 48 is experiencing disproportionate failure rates here.

4. Broader Infrastructure and Economic Consequences

The increased frequency of emissions-related breakdowns has:

* Increased the number of disabled commercial vehicles statewide

* Increased the number of heavy recovery deployments

* Raised freight costs for Alaska businesses and consumers

* Increased maintenance burdens on small owner-operators

* Introduced additional safety exposure for roadside responders

As a company responsible for emergency heavy recovery, our inability to reach stranded motorists due to our own emissions-related breakdowns presents a serious public safety concern.

Alaska's environment is unlike anywhere else in the United States. Equipment engineered for temperate climates is being required to function in extreme Arctic conditions for which it was never designed. The result is reduced reliability in industries where reliability directly correlates with public safety.

Thank you for your attention to this critical issue affecting Alaska's transportation safety and infrastructure reliability.

Respectfully,

Kevin Lowery

Ben's Towing

Fairbanks, Alaska

John Innes
Senior Operations Manager
Colville Transport LLC, Fairbanks, and Valdez, AK
Office 907-374-7790 Ext 8807
Cell 907-590-0027

JOHN PIKE

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Outlook

FW: Webinar Opportunity: Operational Best Practices That Separate Elite Fleets

From Thomas, Jody K (DOT) <jody.thomas@alaska.gov>
Date Thu 3/5/2026 11:07 AM
To Anderson, Ryan (DOT) <ryan.anderson@alaska.gov>
Cc Tessen, Danielle R (DOT) <danielle.tessen@alaska.gov>

Please see information below related to DEF.

Thank you,
Jody Thomas
Special Project Liaison
Commissioner's Office
(907)322-4141

From: Jamie Benson <jamie@aktrucks.org>
Sent: Thursday, March 5, 2026 11:02 AM
To: Thomas, Jody K (DOT) <jody.thomas@alaska.gov>
Subject: Fw: Webinar Opportunity: Operational Best Practices That Separate Elite Fleets

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More from Black Gold 🙂

Jamie Benson
President / CEO
Alaska Trucking Association
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From: Jeremy Huffman <jeremy@blackgoldalaska.com>
Sent: Thursday, March 5, 2026 10:35 AM
To: Jamie Benson <jamie@aktrucks.org>
Subject: Re: Webinar Opportunity: Operational Best Practices That Separate Elite Fleets

That would be excellent.
I was surprised at how many people were interested.
Thanks Jamie.

We had a really good chat with the EPA/ Dunleavy over at Sourdough yesterday.
Below are the talking points from Black Gold's side in case you were interested.
We have a follow up meeting with them later this month on teams.

Meeting Topics: Extreme-Cold Aftertreatment & Emissions System Failures in Alaska
1. High Failure Rates in Extreme Cold

- Approximately 70% of our fleet failures are tied to aftertreatment system failures.
- DEF inducement systems are generally designed to stop inducing DEF at –20°F, but prolonged cold operations push systems beyond their intended limits.
- Aftertreatment systems struggle to stay thawed and operational once ambient temperatures return to –20°F after extended exposure to colder conditions.

2. DEF Freezing, Expansion, and System Damage

- DEF expands 7–10% when frozen, creating risk of line ruptures, cracked fittings, and failures at low points in the system.
- Extreme cold increases the likelihood of DEF remaining frozen longer, preventing proper thawing and circulation.

3. Ambient Air System Failures and Communication Loss

- Ambient air systems are the primary communication pathway for emissions system operation.
- At extreme temperatures, ambient air sensors go offline, causing miscommunication with emissions controls and triggering derates.
- PACCAR platforms are alpha-tested to –40°F, but below this threshold ambient air communication becomes unreliable.

4. Cummins Platform Limitations and Calibration Issues

- Cummins engines the most common platform in Alaska are calibrated to operate down to –52°F before triggering an emissions derate.
- Our field data reports show trucks are derating well before –52°F, contradicting calibration thresholds.
- On January 9, 2025, Cummins released a revised calibration intended to “reduce false occurrences of maintenance derates for ambient air temp faults.”
- This revised calibration has worsened operational reliability, causing DEF inducement at extreme temperatures and increasing breakdowns.

- Dealerships are required to install the newest emissions calibrations to maintain compliance, even when updates reduce cold-weather reliability.

5. Ongoing Engineering Engagement and Pending Calibration Fix

- Continued communication with Cummins Controls and Safety teams has highlighted widespread operational and safety concerns across Alaska's fleets.
- Cummins has confirmed that another revised calibration is in development to address persistent derate and safety issues.
- Open question: whether emissions systems can be safely calibrated to operate below –52°F without triggering faults.

6. Field Testing of 2027 Emissions Platform

- A 2027 beta-test engine has been deployed into our fleet operations.
- The system is designed to operate at 1,000°F aftertreatment temperatures to further reduce particulate emissions.
- New crankcase air recirculation design routes filtered crankcase fumes back into the intake, which has caused sensor failures and emissions faults during extreme cold cycles.

7. Off-Road Equipment Lockout Risks

- Tier 4 emissions systems on off-road equipment can trigger dealer lockout functions, preventing end users from performing repairs.
- Unlocking requires a manufacturer authorized key, creating operational downtime during critical winter periods.

8. Reliability Challenges for Critical Power Infrastructure

- Emissions compliant generator systems often the sole power source for remote Alaskan projects face reliability issues in extreme cold.
- Re-air systems have been developed to improve emissions reliability, but challenges persist for Tier 4 platforms in sustained sub zero environments.

9. Broader Safety and Operational Impacts

- Emissions system failures in extreme cold create safety risks, stranded equipment, and significant operational downtime.
- Alaska's unique climate continues to expose limitations in emissions compliant platforms not designed for prolonged exposure to –40°F conditions.

BLACK GOLD TRANSPORT

Jeremy Huffman
President

Phone 907.313.8612 **Mobile** 907.388.4490
Web www.bgtak.com **Email** jhuffman@bgtak.com
1520 Sailor Court, North Pole, AK 99705

From: Jamie Benson <jamie@aktrucks.org>
Sent: Thursday, March 5, 2026 10:25 AM
To: Jeremy Huffman <jeremy@blackgoldalaska.com>
Subject: Re: Webinar Opportunity: Operational Best Practices That Separate Elite Fleets

Its virtual so it's wide open! I can send you the link and you can share it 🙂 Thank you!

Jamie Benson
President / CEO
Alaska Trucking Association
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From: Jeremy Huffman <jeremy@blackgoldalaska.com>
Sent: Thursday, March 5, 2026 9:42 AM
To: Jamie Benson <jamie@aktrucks.org>
Subject: Re: Webinar Opportunity: Operational Best Practices That Separate Elite Fleets

Jamie I have 5 people that would like to join this course. Is there a cap on attendance?

BLACK GOLD TRANSPORT
Jeremy Huffman
President

Phone 907.313.8612 **Mobile** 907.388.4490

Web www.bgtak.com **Email** jhuffman@bgtak.com

1520 Sailor Court, North Pole, AK 99705

From: Jamie Benson <jamie@aktrucks.org>
Sent: Wednesday, March 4, 2026 11:24 AM
To: ATA Board <ATABoard@aktrucks.org>
Subject: Fw: Webinar Opportunity: Operational Best Practices That Separate Elite Fleets

All,
We sent this out yesterday. I would love if you could pass directly to your safety leaders. It is free and totally virtual. Thanks so much!

Jamie Benson
President / CEO
Alaska Trucking Association
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From: ATA <marketing-aktrucks.org@shared1.ccsend.com>
Sent: Tuesday, March 3, 2026 3:00 PM
To: Jamie Benson <jamie@aktrucks.org>
Subject: Webinar Opportunity: Operational Best Practices That Separate Elite Fleets

ALASKA TRUCKING ASSOCIATION

Webinar Opportunity: Operational Best Practices That Separate Elite Fleets

Hello Members,

The Alaska Trucking Association invites you to join us for an upcoming virtual webinar presented by Acrisure: From Policy to Performance: Operational Best Practices That Separate Elite Fleets.

What separates the safest, best-performing fleets from the rest? They go beyond compliance. This session will explore practical, real-world strategies that have the greatest impact on fleet performance—from technology and driver onboarding to effective training, post-incident response, and managing risk in Alaska's challenging operating environment.

Designed for safety leaders and operations professionals, this webinar focuses on actionable leadership behaviors and proven best practices you can implement immediately. You'll leave with clear strategies to promote safer outcomes, strengthen credibility with your customers and employees, and turn safety policy into measurable performance.

Date: April 7

Time: 10:30 AM – 12:00 PM

Format: Virtual

If you would like to attend, please contact Jamie at jamie@aktrucks.org to receive the webinar invite.

Alaska Trucking Association


ALASKA TRUCKING ASSOCIATION
Alaska Trucking Association invites you to
FROM POLICY TO PERFORMANCE:
OPERATIONAL BEST PRACTICES THAT SEPARATE ELITE FLEETS
Presented by ACRISURE
What separates the safest best fleets from the rest?
They go beyond compliance.
Presented by Acrisure, this webinar delivers practical, real-world strategies that most impact fleet performance, from technology and driver onboarding to effective training, post-incident response, and managing risk in Alaska's challenging conditions.
Designed for safety leaders and operations professionals, this session focuses on actionable leadership behaviors and proven best practices you can implement immediately. You'll leave with clear strategies to promote safe outcomes, strengthen credibility with your customers and employees, and translate safety policy into measurable performance.
Tuesday, April 7, 2026
10:30 am – 12:00 pm | Virtual
SIGN UP: JAMIE@AKTRUCKS.ORG

Together, we can drive the future of trucking in Alaska!

Alaska Trucking Association | 907-276-1149 | info@aktrucks.org | www.aktrucks.org

ALASKA TRUCKING ASSOCIATION | 3443 Minnesota Drive | ANCHORAGE, AK 99503 US

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Outlook

FW: DEF feedback

From Thomas, Jody K (DOT) <jody.thomas@alaska.gov>
Date Thu 3/5/2026 11:06 AM
To Anderson, Ryan (DOT) <ryan.anderson@alaska.gov>
Cc Tessen, Danielle R (DOT) <danielle.tessen@alaska.gov>

Please see information below related to DEF.

Thank you,
Jody Thomas
Special Project Liaison
Commissioner's Office
(907)322-4141

From: Jamie Benson <jamie@aktrucks.org>
Sent: Thursday, March 5, 2026 10:52 AM
To: Thomas, Jody K (DOT) <jody.thomas@alaska.gov>
Subject: Fw: DEF feedback

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From Northern Industrial Training

Jamie Benson
President / CEO
Alaska Trucking Association
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From: Joey Crum <Joey.Crum@nitalaska.com>
Sent: Wednesday, March 4, 2026 4:20 PM
To: Jamie Benson <jamie@aktrucks.org>
Subject: RE: DEF feedback

I asked my shop head and this is what he sent me.

Just some facts:
DEF is 67.5% deionized water and 32.5% urea…….it's mostly water, it freezes in cold weather.

Inside the DEF tank is a pump to move DEF fluid through lines to an injector on the exhaust system.
All these components freeze; the ECM derates the motor and limits speed to around 5mph because it sees a malfunction in the emission system.
The DEF system is designed with a heater (usually engine coolant through a heat exchanger) to keep the tank from freezing, but that only works when the truck is at full operating temp and engine is running.

IMO:
It's not practical to leave a truck running 24/7.
Starting the truck and allowing it to warm up for a couple hours doesn't thaw the tank (we've tried this in Fairbanks), the truck must be driven and a load put on it to create enough heat in the cooling system.
Our experience is the truck ECM sees a problem and derates before the DEF system is thawed and can function normally.
Parking trucks with DEF systems inside a heated shop has been the best alternative. Not everyone is going to have access to park inside and it's not solving a problem but more of preventive maintenance for some.
There are additional operating and maintenance costs with DEF systems in cold weather operation such as: higher fuel usage, down time, diagnostic troubleshooting, labor/repairs and towing to start with.
There are safety issues for drivers and other vehicle traffic when a truck is derated and limited to 5 mph.
Operational and logistics are impacted severely when a load can't be delivered.

Solving the problem of DEF in cold weather operations without eliminating DEF completely will most likely need some amendments in regulations to allow OEM's to not derate and shut down a truck during cold weather operations.

Let's say you have a gallon of water that you drink from every day and regulations say you must store it in the freezer. If you take it out of the freezer frequently and take a sip, shake the jug, rub your hands on the outside of the jug, you may keep it from freezing. But what happens when you fall asleep for the night……

Joey Crum JD
President & CEO
Northern Industrial Training, LLC
Office (907) 357-6400
Fax (907) 357-6430

"One of the great mistakes is to judge policies and programs by their intentions rather than their results." Milton Friedman

https://nitalaska.com/

<image004.gif>
<image005.gif>

Our Team, Your Advantage

From: Jamie Benson <jamie@aktrucks.org>
Sent: Wednesday, March 4, 2026 1:12 PM
To: philip.whitlatch@crowley.com; ATA Board <ATABoard@aktrucks.org>
Subject: Re: DEF feedback

Attachment shared by Stephen Leo for your reference.

The attached Detroit Diesel presentation outlines upcoming EPA-aligned changes to DEF inducement (derate) rules that will significantly reduce the likelihood of trucks being forced into low-power limp mode due to DEF issues—a major concern for fleets operating in Alaska's cold climate.

Key Points:

• EPA updated guidance in August 2025 allows manufacturers to relax DEF-related derates, and Detroit is adopting these changes.

• Beginning with 2026 software, torque and speed derates occur much later and are far less severe, reducing immobilization risks.

• Older engines (back to 2016) will receive phased software updates.

• The strict 5 mph limp-mode limit is being eliminated; new rules provide extended time windows before derates take effect.

• Updated dashboard messages on newer trucks will reduce confusion for drivers.

• These changes respond to national concern over DEF reliability in cold regions and are highly relevant to Alaska fleets.

This document provides useful context as DOT seeks real-world testimony from ATA members regarding DEF performance in extreme cold.

Jamie Benson
President / CEO
Alaska Trucking Association
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From: Whitlatch, Philip <Philip.Whitlatch@crowley.com>
Sent: Wednesday, March 4, 2026 1:03 PM
To: Jamie Benson <jamie@aktrucks.org>; ATA Board <ATABoard@aktrucks.org>
Subject: Re: DEF feedback

I'll work on something. We have had a hell of a time with DEF systems this year. I myself had to lay on the ground in -20° trying to repair lines the broke due to freezing.

Thanks Phil

CROWLEY

Phil Whitlatch,
Regional Manager
South-Central Operations
Crowley Fuels Alaska
m 907.315.0630
philip.whitlatch@crowley.com
Email | Web | Social

From: Jamie Benson <jamie@aktrucks.org>
Sent: Wednesday, March 4, 2026 12:42 PM
To: ATA Board <ATABoard@aktrucks.org>
Subject: DEF feedback

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Dear ATA Board Members,

The Alaska Department of Transportation has reached out requesting fleet-specific feedback and testimony regarding the performance of Diesel Exhaust Fluid (DEF) in Alaska's extreme cold—particularly in the Northern Region. As many of you know, DEF reliability below -20°F continues to create operational delays, derates, and emergency road calls across multiple fleet types.

This request comes at an important moment. Senator Dan Sullivan's cold-weather diesel legislation is gaining significant national momentum, and DOT is gathering real-world Alaska data to help support ongoing policy discussions and potential regulatory solutions. Your first-hand experience will be extremely valuable.

What DOT need's from you:

• Any brief testimony or examples related to DEF system issues in extreme cold

• DEF freezing or crystallization

• Sensor failures

• Engine derates or shutdowns

• Workarounds implemented

• Cost or safety impacts

Even a short paragraph is helpful. DOT is looking for real operational insight—not formal reports. Please send your input as soon as possible and I will compile ATA's response.

Thank you for lending your expertise on an issue that directly affects trucking reliability in Alaska's Arctic and Interior regions. *You are aware that ATA does not have an official position on this issue.* However, as Fleet operators, your individual input would be valuable. You can email Jody Thomas directly with feedback jody.thomas@alaska.gov.

One last note: Do we want to revisit the support of this initiative at our next meeting?

Jamie Benson
President / CEO
Alaska Trucking Association
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Interior Fire Chiefs Association

PO Box 70986
Fairbanks, Alaska 99707

Thank you for the opportunity to provide input regarding the impacts of Diesel Exhaust Fluid (DEF) requirements in Alaska. I am submitting the following comments in my capacity as President of the Interior Fire Chiefs Association, which represents fire service leadership from departments across Interior Alaska.

Emergency response agencies in Interior Alaska operate in one of the most extreme climates in the United States. During winter months, average temperatures routinely fall well below the freezing point of DEF (12°F / -11°C), and extended periods of temperatures ranging from -20°F to -40°F are common. These environmental conditions create significant operational challenges for modern diesel engines that rely on DEF to meet emissions standards.

Emergency apparatus—including fire engines, ambulances, and support vehicles—experience the same mechanical vulnerabilities as other diesel-powered equipment operating in these temperatures. However, the consequences for emergency services are far more critical. Reliability and immediate readiness are essential for emergency response vehicles, and any mechanical limitations that affect the ability of these vehicles to respond to emergencies pose a direct risk to public safety.

In our region, the use of DEF systems presents several practical concerns:

Operational Reliability:
DEF systems are highly susceptible to freezing in Interior Alaska's winter conditions. While many vehicles are equipped with heating systems designed to thaw DEF, these systems are not always effective in sustained extreme cold, particularly when vehicles are parked outside or during extended standby periods. When DEF systems malfunction or freeze, vehicles may enter power derate or "limp mode," significantly limiting their ability to respond to emergencies.

Maintenance and Mechanical Complexity:
The addition of DEF systems introduces more sensors, pumps, heaters, and electronic controls that are vulnerable to failure in extreme cold. Fire departments and other emergency service providers have experienced increased maintenance demands and mechanical issues associated with these components.

Financial Impacts:
Maintaining DEF-equipped vehicles in Arctic conditions results in additional costs. These include increased maintenance labor, replacement of failed DEF system components, and the need for heated storage or additional infrastructure to keep equipment operational. For many smaller and volunteer departments across Interior Alaska, these additional costs place significant strain on already limited budgets.

Operational Risk to Public Safety:
Emergency vehicles must function reliably in all conditions. When DEF-related issues cause vehicles to derate or become temporarily unavailable, it reduces the operational readiness of emergency services. In rural and remote areas where resources are already limited and response distances are long, the loss of even a single apparatus can significantly affect the level of protection available to the community.

Interior Alaska represents a unique operating environment that differs substantially from most areas of the United States where these emissions systems were originally designed and tested. For emergency services tasked with protecting life and property in extreme Arctic conditions, the reliability of apparatus must remain the highest priority.

For these reasons, the Interior Fire Chiefs Association supports consideration of a latitude-based exemption or other regulatory accommodations for regions north of Latitude 59, where sustained winter temperatures create operational conditions that significantly impact DEF system performance.

Thank you for considering the operational realities faced by emergency responders in Alaska. We appreciate the opportunity to contribute to this discussion and would be happy to provide additional information if helpful.

Respectfully,

Chad Heineken
President, Interior Fire Chiefs Association
Fire Chief, City of North Pole Fire Department

