

**Beta Offshore, Case No. 5855-7**  
**Declaration in support of Petition to Modify Variance Conditions**  
**July 18, 2024**

## **Attachment A**

**Annotated Photographic Examples of the Types of Defects  
Causing Delay in Receipt of the SCR Systems by Beta**

**Attachment A**

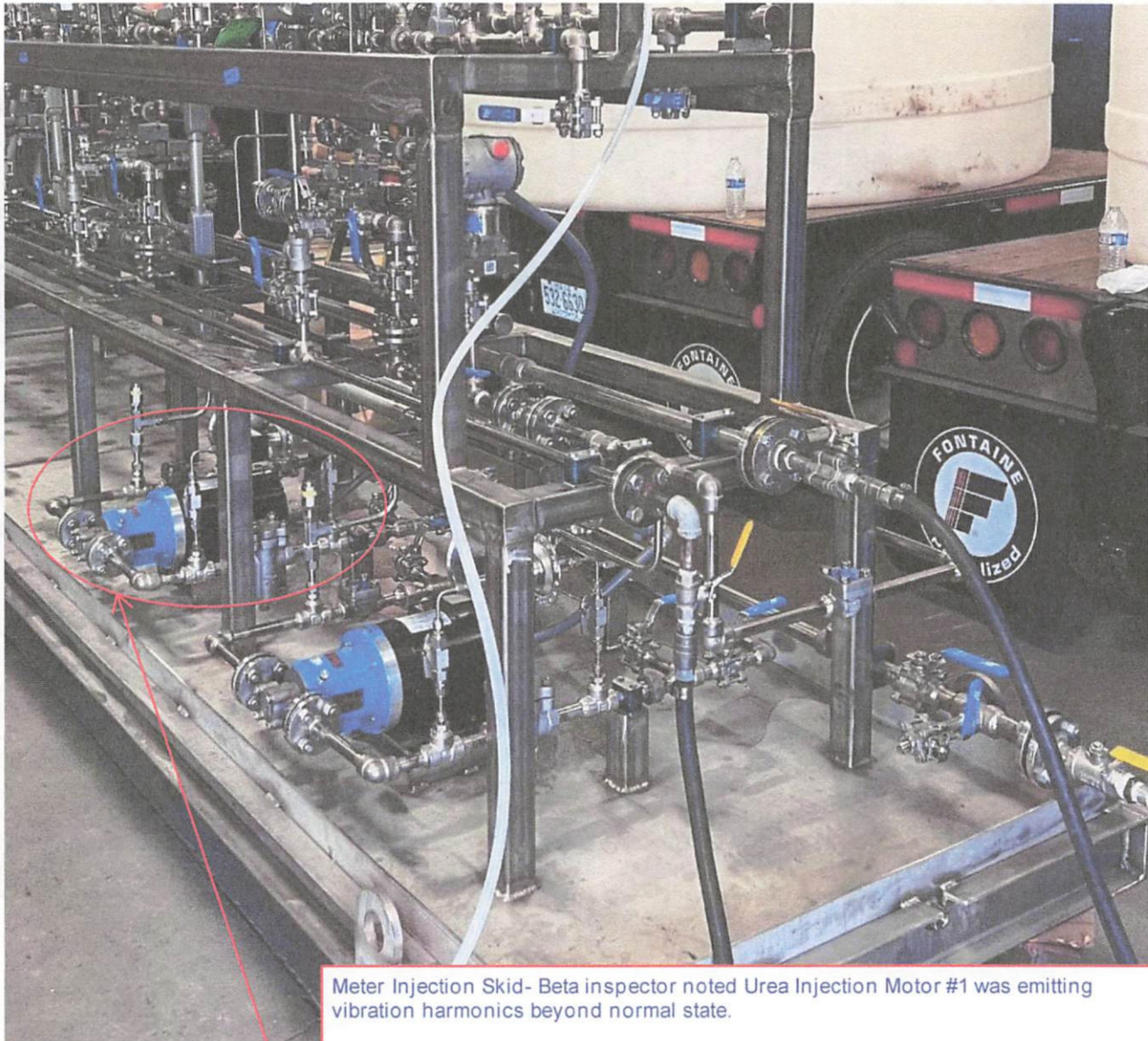
## SCR REACTOR OUTLET FLANGE



SCR Reactor Flange- Beta Inspector found Waste Heat Recovery Unit fabricator failed to update drawings with flange size change.

- a. Pictured: INCORRECT SCR REACTOR OUTLET FLANGE
- b. Beta Issued a change order to the Reactor Fabricator to change the already built flange size to match mating surface. This required this flange to be removed, new flange rolled, drilled, and welded out, causing a delay in shipping.

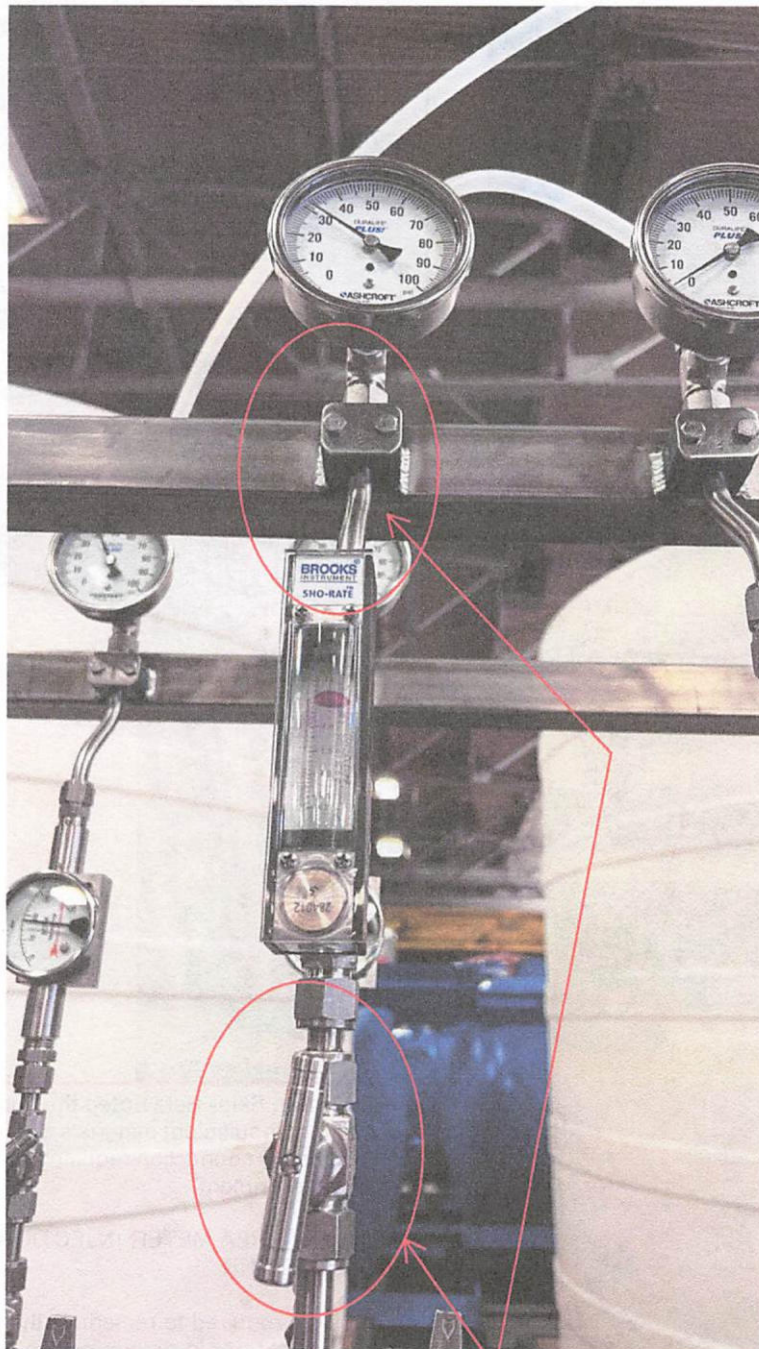
## UREA METER INJECTION SKID MOTOR #1



Meter Injection Skid- Beta inspector noted Urea Injection Motor #1 was emitting vibration harmonics beyond normal state.

- a. Pictured- UREA METER INJECTION SKID- MOTOR #1
- b. Beta was required to remove the motor & pump combination and return to the supplier for warranty repairs, causing a delay in the delivery.

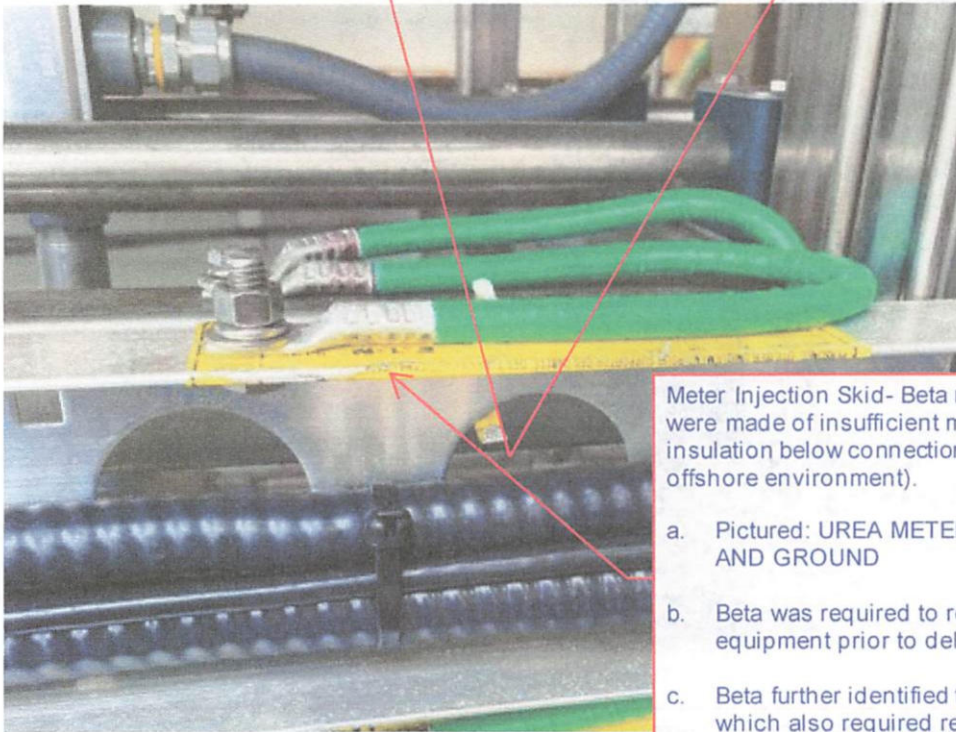
## UREA METER INJECTION SKID METER VALVE(S)



Meter Injection Skid - Beta inspector noted incorrect metering valves for the specific application.

- a. Pictured: UREA METER INJECTION SKID- METER VALVE(S) (very long lead items)
- b. Correct metering valves & tubing connections were not available at time of shipment to California, thus causing installation delay.

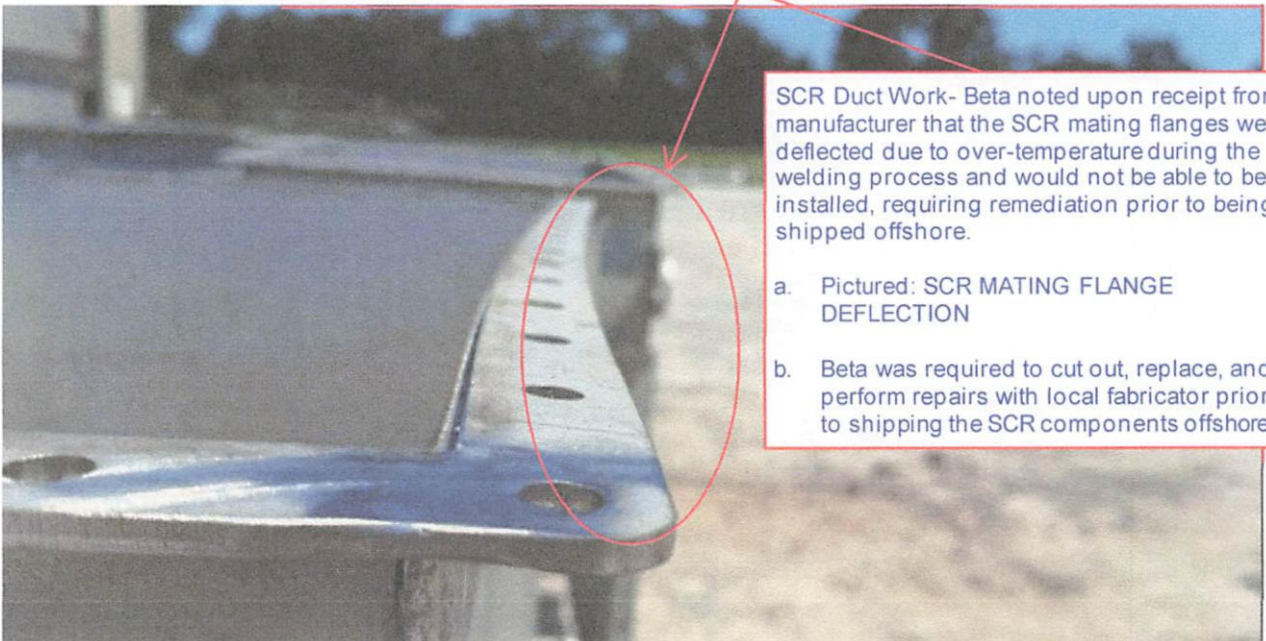
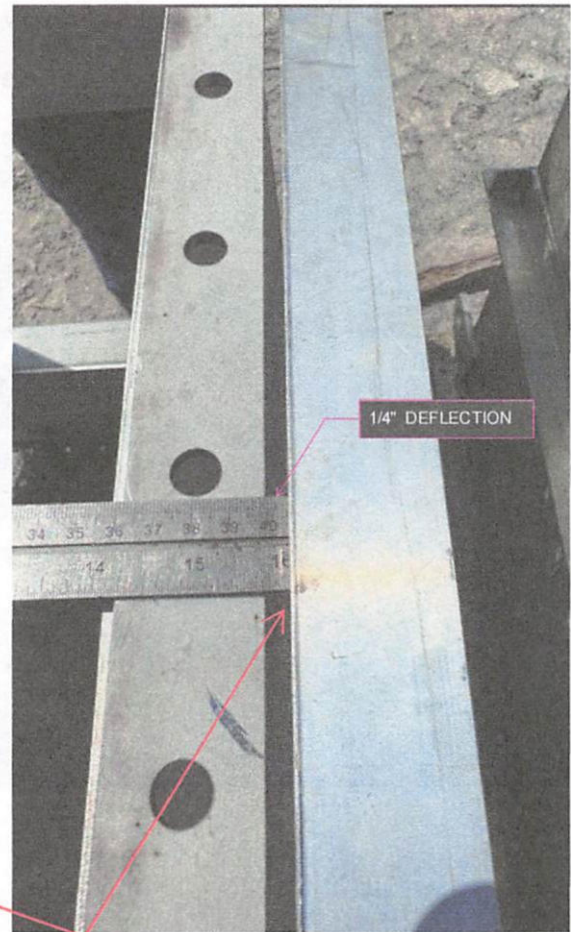
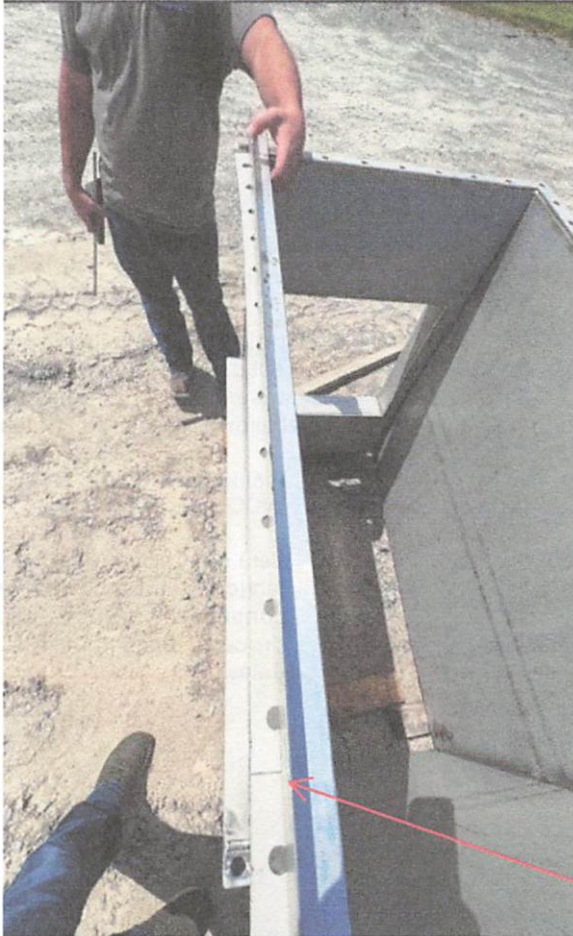
## UREA METER INJECTION SKID ELECTRICAL J-BOX AND GROUND



Meter Injection Skid- Beta noted the Junction Boxes (J-Box) (6) were made of insufficient materials and grounding straps had tape insulation below connection requiring remediation (this not suited for offshore environment).

- Pictured: UREA METER INJECTION SKID ELECTRICAL J-BOX AND GROUND
- Beta was required to remediate the issue with approved equipment prior to delivering the skid offshore.
- Beta further identified the same issue on the two remaining skids which also required remediation prior to offshore delivery.

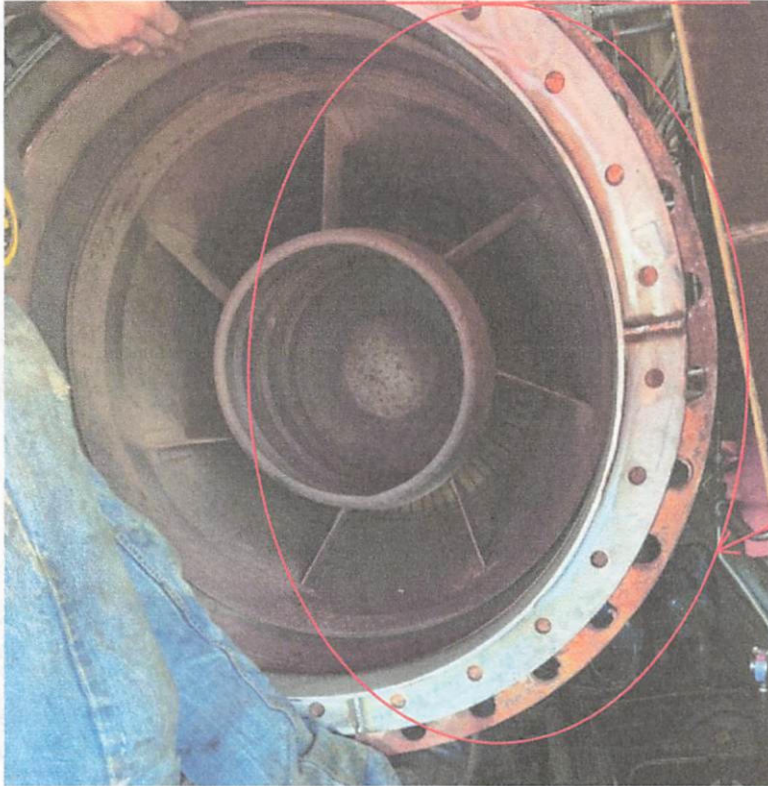
## SCR DUCT MATING FLANGE DEFLECTION



SCR Duct Work- Beta noted upon receipt from manufacturer that the SCR mating flanges were deflected due to over-temperature during the welding process and would not be able to be installed, requiring remediation prior to being shipped offshore.

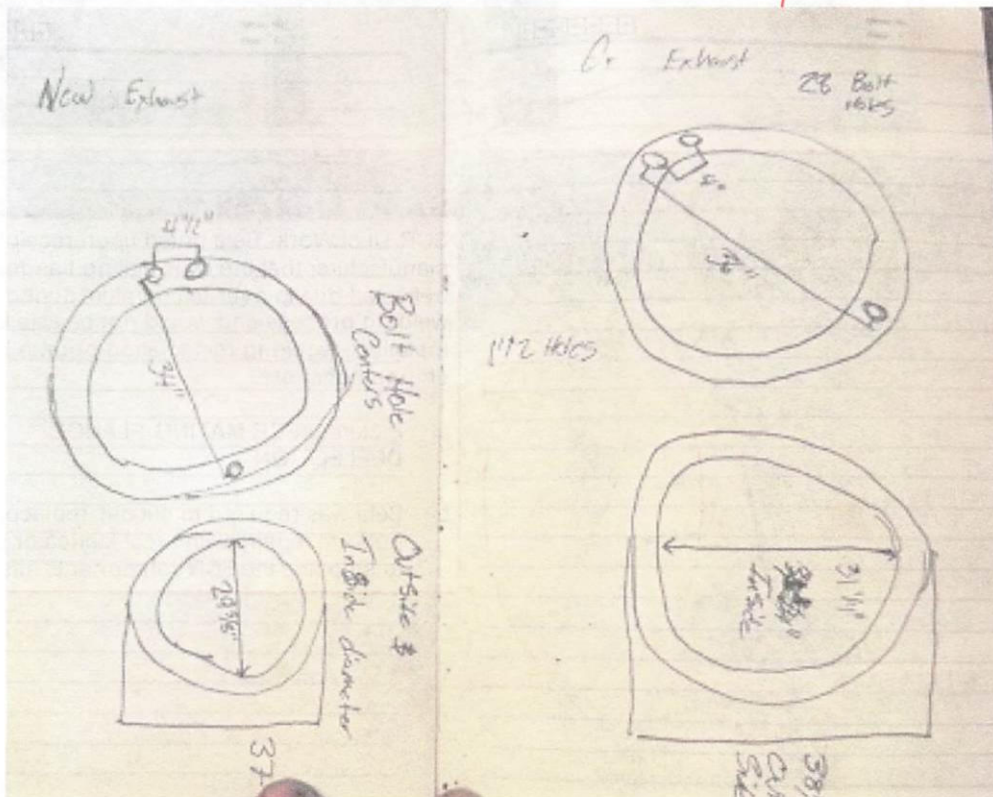
- Pictured: SCR MATING FLANGE DEFLECTION
- Beta was required to cut out, replace, and perform repairs with local fabricator prior to shipping the SCR components offshore.

# TURBINE EXHAUST TO DUCT FLANGE

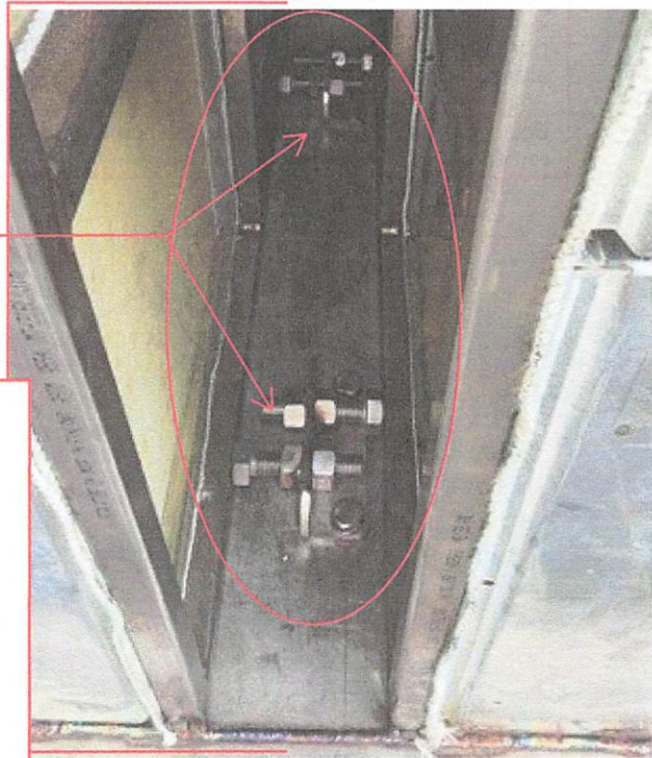
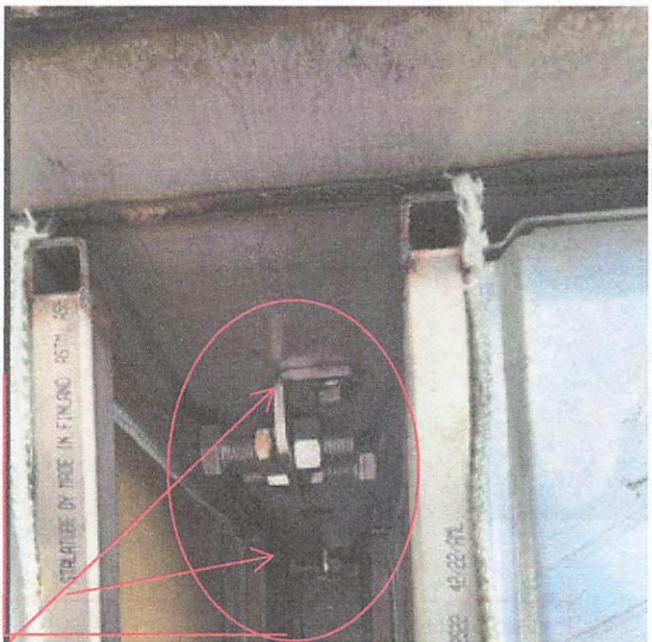
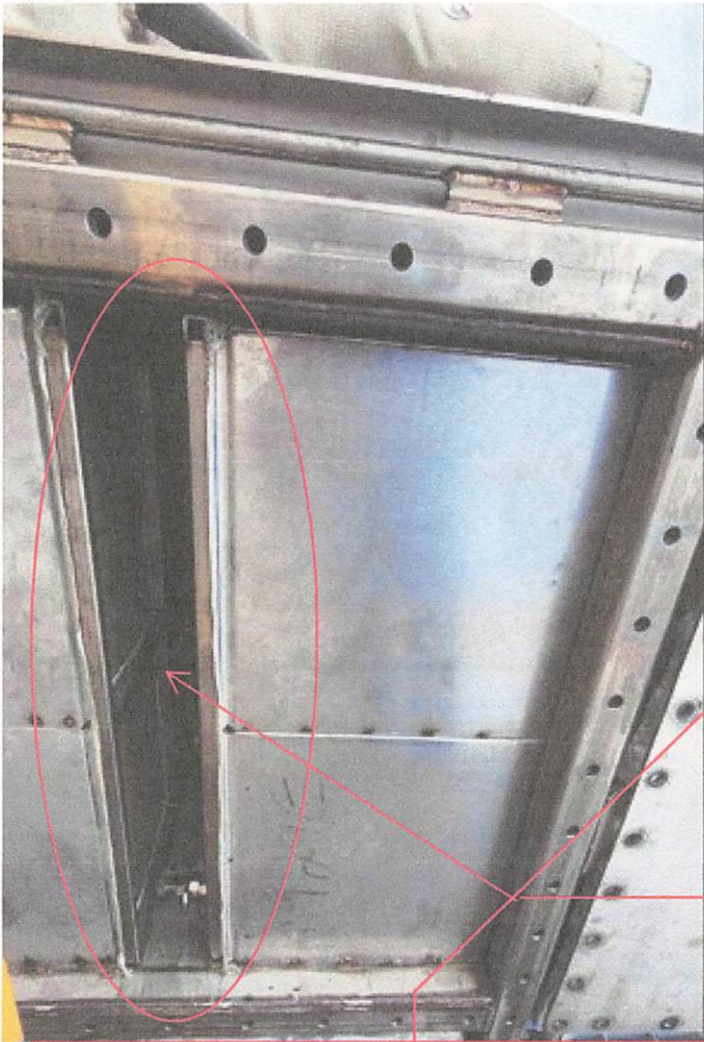


Beta noted that the initial exhaust elbow connection to the turbine exhaust flange size was incorrect during the offshore installation process (bolt holes do not line up).

- a. Pictured: SCR DUCT MATING FLANGE INCORRECT SIZE
- b. Beta contracted local fabricator to fabricate a transition flange in order to continue the offshore installation process, creating offshore installation delays.



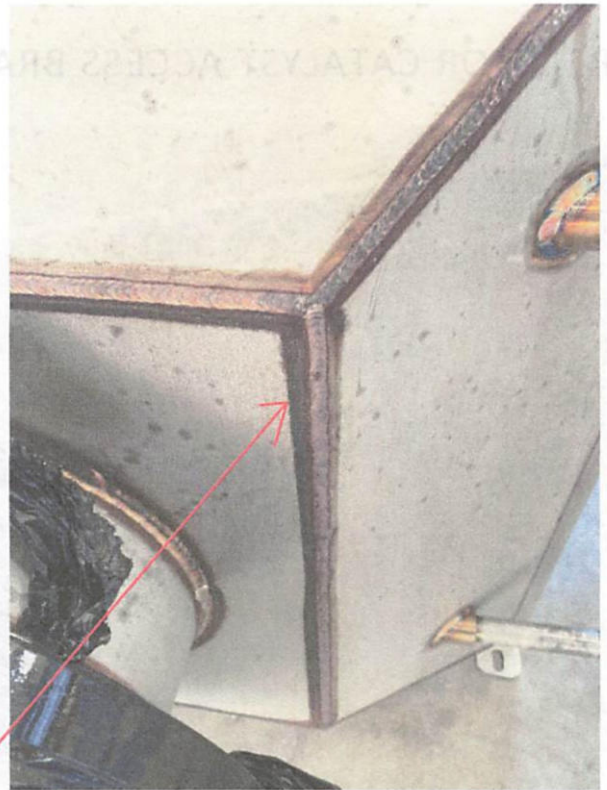
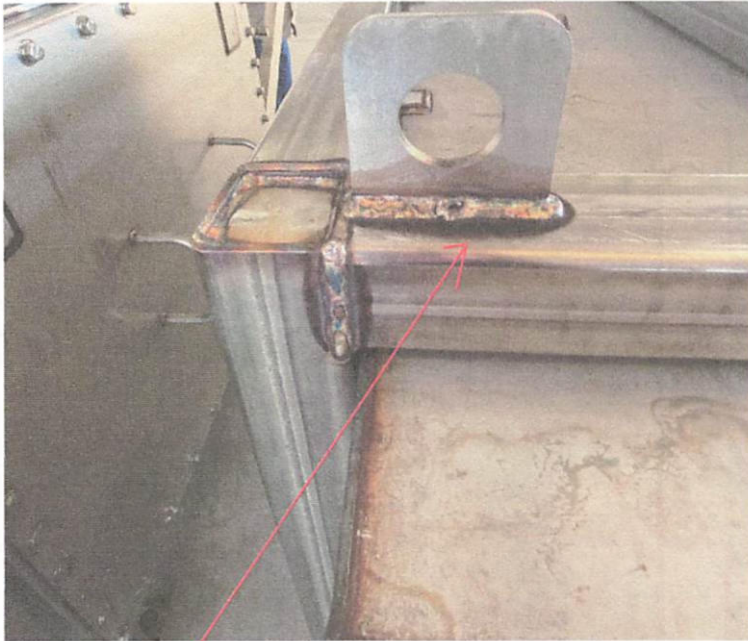
# REACTOR CATALYST ACCESS BRACKET



SCR Reactor Catalyst- Beta could not install the catalyst cassettes into the reactors because the bracket that holds them in place was designed/ fabricated incorrectly.

- a. Pictured: SCR- REACTOR CATALYST ACCESS BRACKET
- b. Beta discovered the cassette seating brackets were positioned too close to the inlet/outlet to allow cassettes to be installed, which required remediation to successfully install the cassette, causing rework and shipping delay.





Weld quality from the manufacturer on the SCR reactor boxes was insufficient in some areas due to over heating during the welding process and weld porosity (holes- weld defects) was found in multiple areas.

Beta was required to contract a local contractor to remediate weld defects prior to deliverv.



**Beta Offshore, Case No. 5855-7**  
**Declaration in support of Petition to Modify Variance Conditions**  
**July 18, 2024**

**Attachment B**

**News Reports about Extreme Weather**  
**In Broussard, Louisiana – Location of Amplify Energy’s**  
**SCR System Component Assembly Yard**  
**And**  
**In Houston, Texas – Location of**  
**Amplify Energy’s Headquarters**

**Attachment B**



HOME | ON-AIR | LISTEN | APP | CONTESTS | WEATHER

Q [YouTube icon] [Facebook icon] [Twitter icon]

LISTEN NOW  
Dan Bongino

NOTEWORTHY: JULY 4TH SUMMER SIZZLE KPEL APP KPEL MERCH LEGAL AUTHORITY GAS PRICES CRIME

# SIGNIFICANT POWER OUTAGES IN YOUNGSVILLE AREA DUE TO SUSPECTED TORNADOES

DJ Digital | Published: June 2, 2024

SLEMCO, Lafayette

SHARE ON FACEBOOK

SHARE ON TWITTER

FEATURED

Severe weather, including suspected tornadoes, has caused significant power outages across the Youngsville area, impacting thousands of SLEMCO customers. The extreme weather event, which struck early this morning, has left extensive damage in its wake and initiated a massive response effort from local utility crews.

LAFAYETTE

92° JUN 25 TUESDAY

## Early Morning Impact



SLEMCO, Facebook

RECOMMENDED

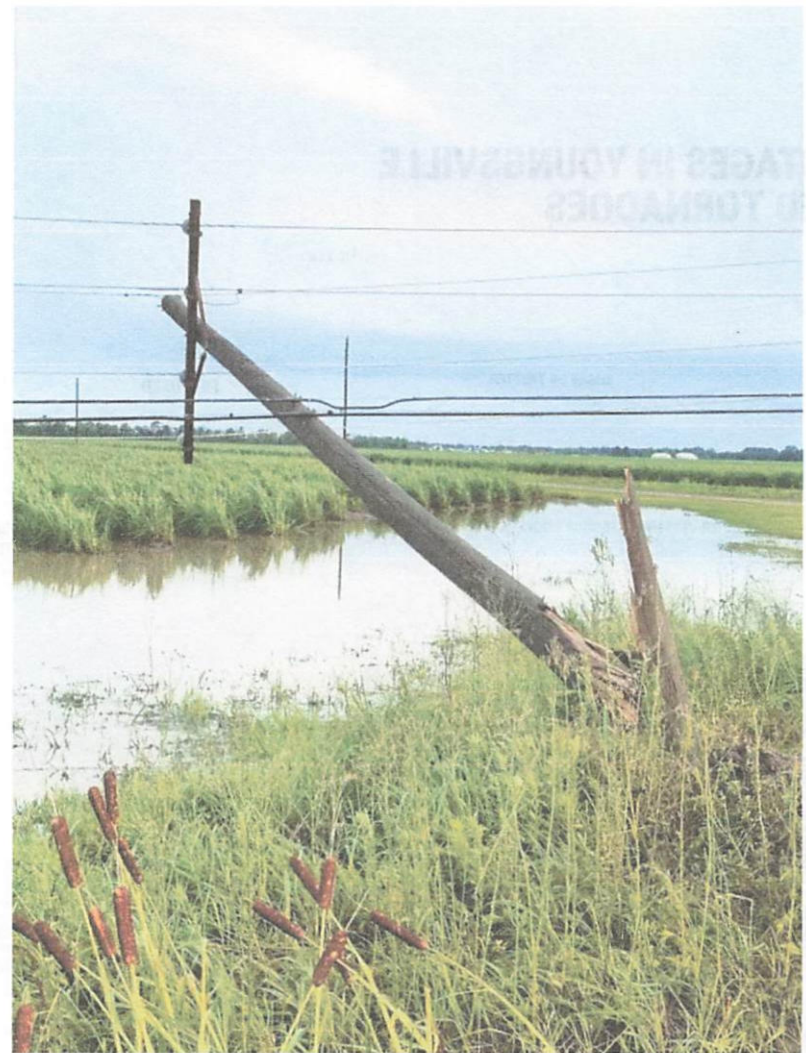


VIBRIANCE

Powered by RevContent

At approximately 3:30 am, a severe lightning storm swept through Vermilion and Lafayette Parishes, affecting 10,250 customers. The storm, accompanied by large hail and suspected tornadoes, caused widespread damage, particularly in the Maurice area. Severe lightning exacerbated the situation, resulting in major power disruptions.

**Extent of Damage**



SLEMCO, Facebook

By 4:45 a.m., the Youngsville area had sustained significant damage. Crews reported multiple single—and double-circuit poles broken out of the Youngsville substation. The area around Detente and Deacon Roads alone saw seven broken double-circuit poles, with additional fallen trees complicating the situation. As daylight broke, more damage became visible, prompting crews to prepare and load equipment for repairs. Treertrimming crews were dispatched to begin clearing debris.

ADVERTISEMENT

### Ongoing Restoration Efforts



SLEMCO, Facebook

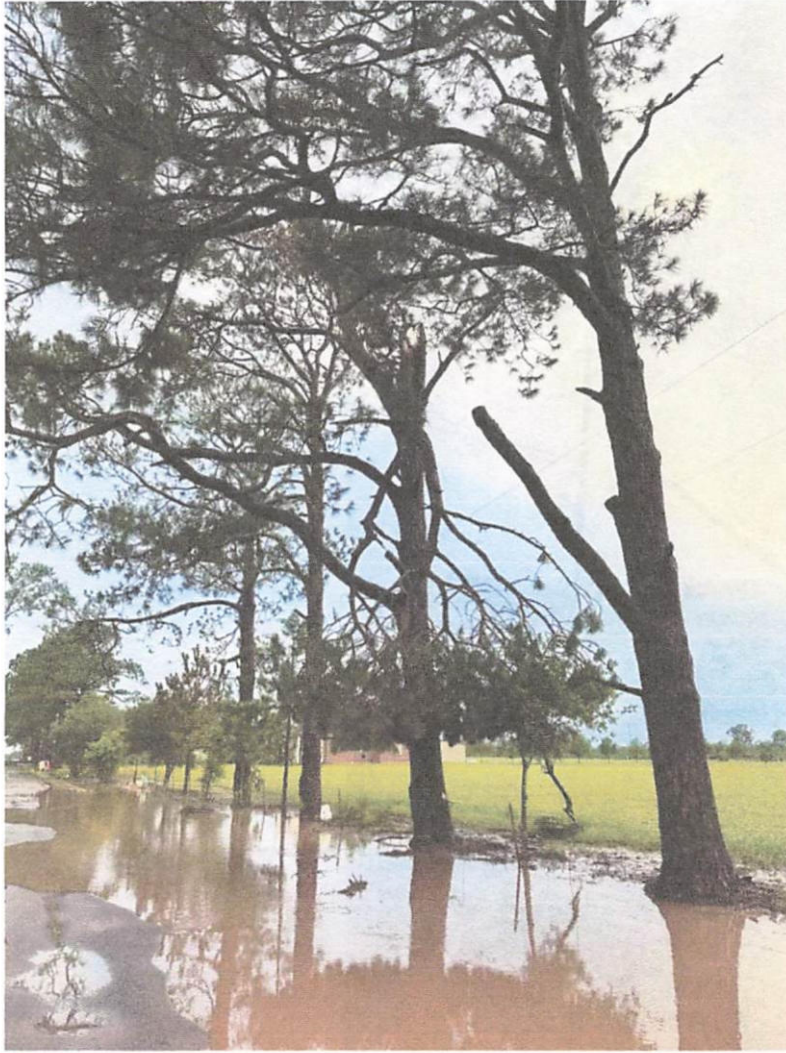
By 9:00 am, SLEMCO updated the community on the progress and challenges ahead. Currently, 4,800 customers remain without power. Efforts are concentrated on the three-phase line near Detente Road on Highway 339, where multiple structures are down. This area has witnessed significant property damage, with trees down across side roads, homes damaged by fallen trees, and collapsed barns and roofs.



In the Chemin Agreeable/Youngsville area, the tornado severely damaged one transmission structure and seven double-circuit feeder poles. Crews and materials are en route to repair these critical infrastructures. Once these feeder poles are replaced, focus will shift to smaller group and individual outages. Additional repairs are needed on Guillot Road, where wire damage has been reported. Cell service in the hardest-hit areas remains spotty, and cable and internet providers are also working on repairs.

**How Long Until Power is Back?**





SLEMCO, Facebook

SLEMCO emphasizes that power restoration will be a marathon, not a sprint, with repairs expected to take several hours. The utility company encourages residents to be patient as crews work diligently to restore power safely and efficiently.

Residents are advised to stay tuned for further updates and to report any outages by calling 1-888-275-3626, although due to the high volume of calls, some delays in reaching the service may occur.

ADVERTISEMENT

**What's Next?**





SLEMCO, Facebook

The suspected tornadoes have caused significant disruption in the Youngsville area, but SLEMCO and its crews are steadily restoring power. The community's patience and cooperation are crucial during this extensive restoration process. Further updates will be provided as more information becomes available.

**LOOK: THE MOST EXPENSIVE WEATHER AND CLIMATE DISASTERS IN RECENT DECADES**

Stacker ranked the most expensive climate disasters by the billions since 1980 by the total cost of all damages, adjusted for inflation, based on 2021 data from the National Oceanic and Atmospheric Administration (NOAA). The list starts with Hurricane Sally, which caused \$7.3 billion in damages in 2020, and ends with a devastating 2005 hurricane that caused \$170 billion in damage and killed at least 1,833 people. Keep reading to discover the 50 of the most expensive climate disasters in recent decades in the U.S.

Gallery Credit: *KATELYN LEBOFF*





92°

SIGN UP

**WEATHER ALERT**

Heat Advisory: Avoyelles Parish, Evangeline Parish, Lafayette Parish, Lower St. Martin Parish, St. Landry Parish, Upper St. Martin Parish



**LOCAL**

**Power still out for thousands in Acadiana due to severe weather**

by: [Lena Foster](#)

Posted: May 16, 2024 / 10:02 PM CDT

Updated: May 17, 2024 / 04:02 PM CDT

SHARE

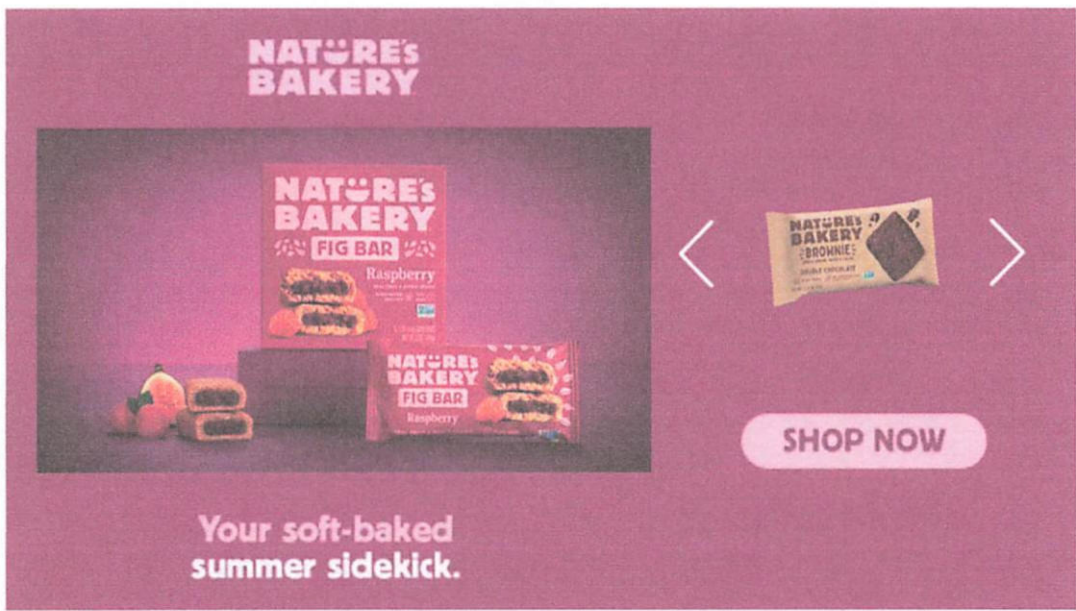


([KLFY](#))– After Thursday’s severe weather, thousands in Acadiana are still without power this afternoon.

According to the [Louisiana Power Outage Map](#), just under 55,000 customers were out statewide at 3 p.m., down from the 150,000 outages at 7:30 a.m. [LUS reports](#) 1,605 customers out.

As of 11 a.m., [Cleco](#) said it restored power to 23,000 (65%) of the 35,000 customers statewide who experienced a storm-related outage. At 11:30 a.m., [SLEMCO](#) reported 4,700 customers were out of power, down from 40,000 right after the storm rolled through.

ADVERTISING



[Entergy](#) said substations that provide power to the St. Martinville, Sunset and Grand Coteau areas were damaged in the storms, and as of 3:30 p.m. they were still offline. In a release, the utility said those in Jeff Davis and Calcasieu parishes may see their lights on late tonight, but it may be until late Sunday morning before power is fully restored to its Acadiana customers.

**WEATHER NEWS** Published May 16, 2024 9:56pm EDT | Updated May 17, 2024 7:31pm EDT

## Houston metro rocked by 100 mph derecho that left 7 dead and over 1 million without power

A storm system spawned severe thunderstorms in Houston Thursday, causing at least four fatalities and leaving more than 1 million customers without power across southeastern Texas.

By Andrew Wulfeck , Scott Sistik

Source FOX Weather

Houston area continues clean up efforts after 100 mph derecho blasts downtown

Several buildings across Houston suffered damage in Thursday's storm, including high-rises whose officials say every floor has at least one window completely blown out.

**HOUSTON** - A line of severe thunderstorms swept through southeastern Texas and Louisiana on Thursday, blasting the Houston area with incredible winds reaching up to 100 mph that left at least

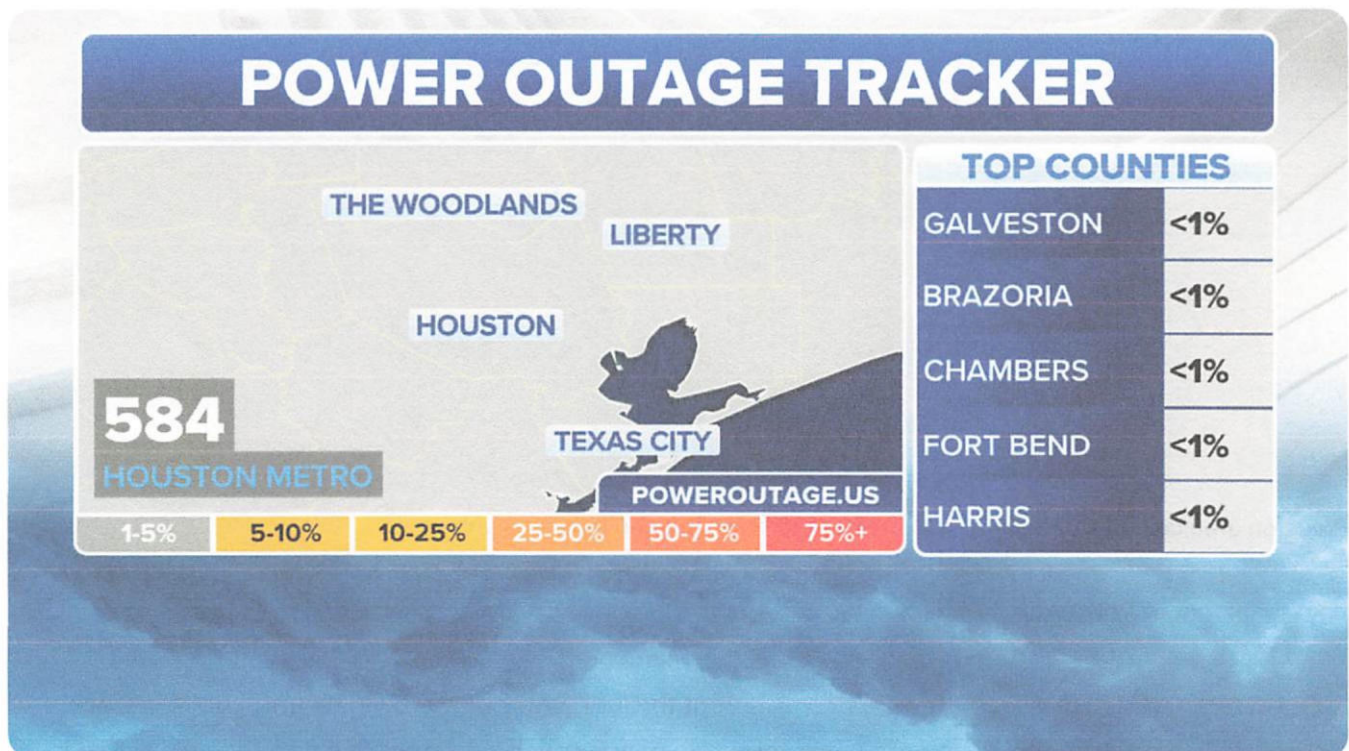
seven dead - including a mother of a newborn - and more than 1 million power customers without electricity.

The extreme wind gusts blew out windows of high-rise buildings and caused transmission towers holding power lines to crumble.

The National Weather Service in Houston called the event a derecho, which produces destructive winds over hundreds of miles and impacts millions of people.

**SEE IT: DEADLY STORMS WALLOP HOUSTON AS FEROCIOUS WINDS LEAVE DESTRUCTIVE PATH ACROSS SOUTH**

PowerOutage.us reported that more than 800,000 people in the Houston metro area lost power, but with nearby counties also dealing with outages, the state's tally climbed to well over 1 million customers at the storm's peak. More than a half million were still without power in Houston as of early Saturday morning.



## Houston Power Outages

(FOX Weather)

---

NWS storm survey teams said much of the damage across much of the Houston area was straight-line winds from extreme thunderstorm downdrafts, though one EF-1 tornado was confirmed near Cypress.

The strongest gust recorded by a wind gauge was 78 mph in the Highlands neighborhood, but based on the extent of damage, survey teams estimated thunderstorm gusts reached 90-100 mph in Baytown, while Downtown Houston had "significant" straight-line winds peaking at 100 mph.

"It was kind of crazy — I was up in my bedroom and all of a sudden my alarm starts going off: 'Tornado Warning! Tornado Warning! Take shelter,' " Juan Alcala, who was visiting Houston from Austin, told FOX Weather. "All of a sudden everything just turns dark, and you could see outside the wind started coming in, and the rain — it was just dark."

President Joe Biden declared seven counties as a major disaster, which will allow FEMA to approve assistance and provide storm victims access to small business loans.

### **SOME HOUSTON RESIDENTS TOLD COULD BE 'WEEKS' WITHOUT POWER AS 90S HEAT RETURNS**

#### **Mother of newborn among 7 killed by storm**

Houston Mayor John Whitmire said at least four people were killed by the storm, and state resources were being requested to help with the recovery. At least two were killed by falling trees, and a third was killed by a falling crane, officials said.

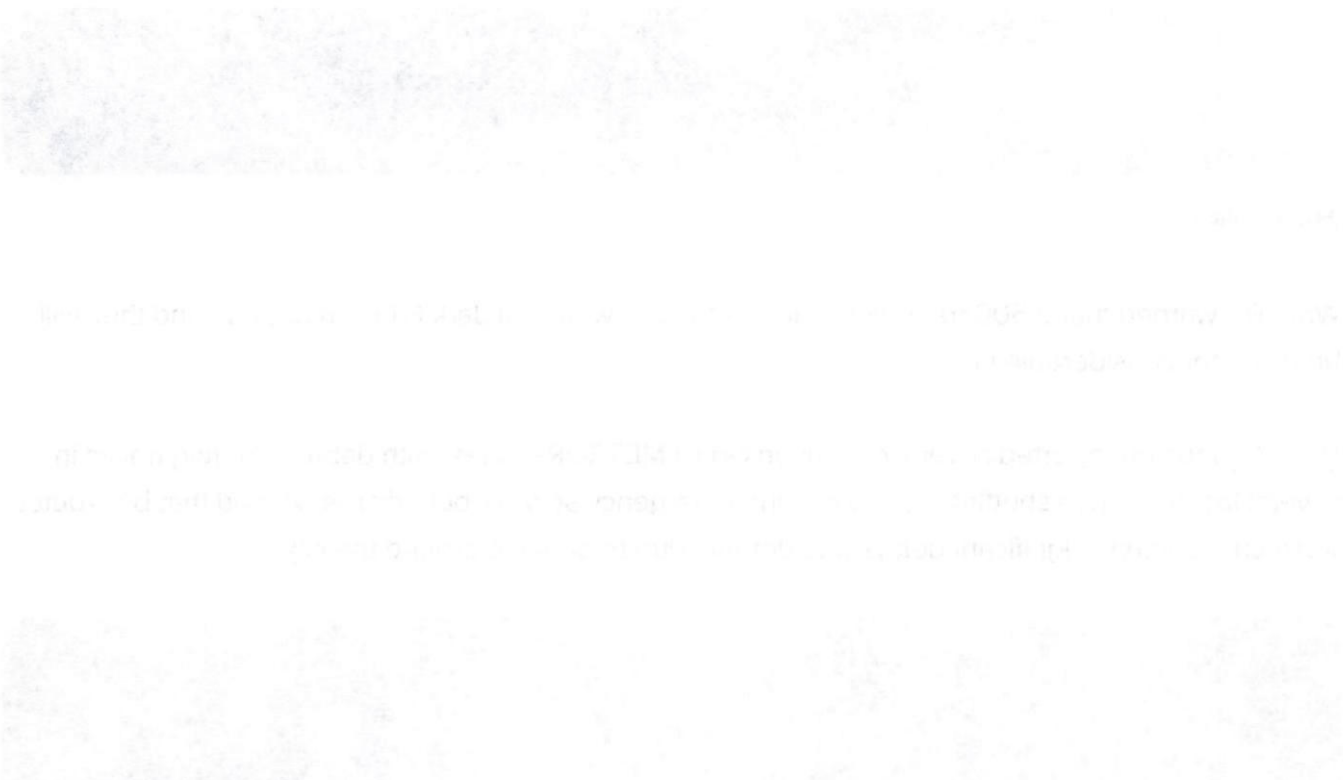
The Harris County Sheriff's Office reported an additional three fatalities on Friday evening that were all considered to be indirectly or directly tied to the storm.

#### 4 killed as severe storms blast Houston area with 75+ mph wind

A mother of a newborn was among four killed when a line of severe thunderstorms brought ferocious winds to the Houston area Thursday night, FOX 26 Houston reports.

A 31-year-old woman who had recently given birth to her fourth child was killed when a tree fell across their car in their driveway, according to FOX 26 Houston. The station reports the woman had concerns about the stability of the tree in the storm and had gone out to the car to move it out of the way when the tree toppled, pinning her inside.

A 73-year-old man was killed while working inside a cement truck when a crane toppled into the cab, FOX 26 reported.



### Man killed after crane falls on cement truck during Houston's severe storm

A man was killed when a large crane fell on a cement truck during a severe storm in Houston on Thursday, officials say. The tragic incident unfolded about 6:40 p.m. CDT Thursday on Wingate near 75th Street.

Harris County Sheriff Ed Gonzalez stated the tragic episodes led to at least three deaths in the unincorporated county.

"We had a storm with 100 mph winds — the equivalent of Hurricane Ike. (There's) considerable damage downtown," Whitmire said during a press conference Thursday night. "We had firefighters taking live wires off (Interstate) 290 that was blocking thoroughfares."





(FOX Weather)

Whitmire warned that 2,500 traffic lights across the city were still dark Friday morning, "and they will be down for considerable hours."

METRO Houston reported several disruptions to its METRORail lines, with debris covering tracks in several locations. Bus shuttles were providing emergency service, but officials warned that bus routes were encountering significant delays and detours due to damage around the city.



Several windows were broken in downtown Houston high-rise buildings during severe weather on May 16, 2024.

(Chief Samuel Peña, Houston Fire Dept. / FOX Weather)

"We're absolutely focused right now on trying to deal with the numerous roads that are blocked by fallen trees, power lines, and debris from some of the structures," Harris County Sheriff Ed Gonzalez told FOX Weather. "So we're coordinating with some of the different crews that are going to be out there so we are asking everybody to be patient as they navigate around some of the slow traffic."

### **'Rain and debris poured into the lobby'**





WIKIPEDIA  
The Free Encyclopedia

# 2024 Houston derecho

From the evening of May 16, 2024, to midday May 17, 2024, a derecho struck the Gulf Coast of the United States from Southeastern Texas to Florida, causing widespread damage, particularly in the city of Houston and surrounding metropolitan area.<sup>[7]</sup> At least seven people were killed by the storms, dubbed the **Houston derecho** by the National Weather Service,<sup>[7]</sup> which brought winds up to 100 miles per hour (160 km/h).<sup>[8][9][10]</sup>

## Meteorological synopsis

On May 14, the Storm Prediction Center (SPC) outlined a level 2/Slight risk for severe weather across portions of central and northern Texas.<sup>[11]</sup> This risk area was zonally extended westward to the Texas–New Mexico border and eastward into southern Mississippi the following day.<sup>[12]</sup> By the morning of May 16, a level 3/Enhanced risk was delineated across central Texas, extending southward and eastward toward the Texas and Louisiana gulf coasts during the afternoon hours.<sup>[13]</sup> <sup>[14]</sup> Convective activity was already ongoing by the time of these outlooks, focused along and north of an outflow boundary from Midland into northeastern Texas.<sup>[15]</sup> The environment south of these storms was characterized by rich low-level moisture and rapidly cooling temperatures with height, contributing to mixed-layer convective available potential energy values at or above 3,000 J/kg, indicative of a very unstable environment.<sup>[14]</sup> Farther east across southeastern Texas and southwestern Louisiana, a greater surge of moisture began to advect with a northward-moving warm front bringing dewpoints as high as the upper-70s °F into the coastal counties. Forecasters believed that not only would thunderstorms develop along the frontal boundary, but also that the front may act to intensify the pre-existing line of storms approaching

## 2024 Houston derecho



Windows blown out of CenterPoint Energy Plaza in Houston

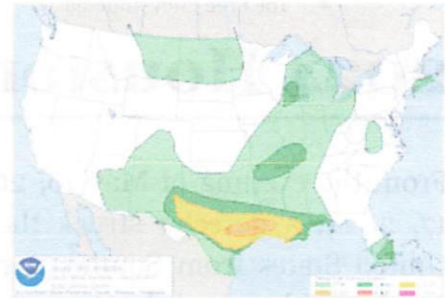
<b>Date(s)</b>	May 16, 2024 <sup>[1]</sup>
<b>Peak wind gust (measured)</b>	78 mph (126 km/h; 34.9 m/s) (Highlands, Texas) <sup>[2]</sup>
<b>Peak wind gust (est.)</b>	100 mph (161 km/h; 44.7 m/s) (Houston, Texas)
<b>Tornado count</b>	3 (Texas, Louisiana) <sup>[3]</sup>
<b>Fatalities</b>	8 <sup>[4]</sup>
<b>Damage costs</b>	\$1.2 billion (2024 USD) <sup>[5]</sup>
<b>Areas affected</b>	Southeast Texas, Louisiana, Southern Mississippi, Southern Alabama, Florida <sup>[6]</sup>

from the west.<sup>[16]</sup>

**Severest impact**

**Greater Houston**

By mid-afternoon, an expansive mesoscale convective system evolved across much of central and eastern Texas, exhibiting numerous updrafts and an increasing potential for extensive damaging winds.<sup>[17]</sup> As this complex surged southeastward, it evolved into a derecho—a particularly long-lived and widespread damaging wind event—as it moved into the Greater Houston metropolitan area. While the highest wind gust recorded by an anemometer reached 78 mph (126 km/h), post-storm damage surveys conducted by the local National Weather Service office estimated that winds reaching 100 mph (160 km/h) moved through portions of the downtown area.<sup>[18]</sup> Two EF1 tornadoes accompanied this activity.<sup>[19]</sup> The derecho maintained vigor as it continued eastward into Louisiana during the evening hours, fueled by continued transport of warm air from the south.<sup>[20]</sup> Isolated hurricane-force wind gusts were recorded, including an 84 mph (135 km/h) gust at the New Orleans Lakefront Airport. Another EF1 tornado was confirmed in Romeville.<sup>[21]</sup> By the pre-dawn hours of May 17, this convective line progressed offshore into the Gulf of Mexico, with instability confined to the immediate coastline. As such, the threat of inland severe weather decreased,<sup>[22]</sup> leaving behind widespread damaging wind reports across portions of the Gulf Coast states.<sup>[23]</sup>



SPC's Day 1 convective outlook for May 16, 2024, issued at 2000Z, indicating an enhanced risk for severe weather from southeast Texas into southwest Louisiana.

## Impact and damage

### Texas

#### Greater Houston

As the derecho moved through the Greater Houston area, it produced wind gusts of up to 100 mph (161 km/h) in Downtown Houston.<sup>[2]</sup> The derecho was considered the worst damaging wind event to affect Houston in nearly 25 years. The strong winds in Downtown Houston blew out the windows of many high-rise buildings in the area, littering the streets below with broken glass. A brick building occupied by a bar near the intersection of Congress Street and Travis Street suffered the collapse of a wall.<sup>[24]</sup> The derecho caused extensive damage to transmission lines along with widespread straight-line damage and more than a million customers lost power in the Greater Houston area and nearby counties as a result of the high winds.<sup>[25]</sup> More than 24 hours later, almost 555,000 customers still remained without power,<sup>[26]</sup> and by Wednesday of the following week, when repairs were initially expected to be finished, nearly 60,000 homes, businesses, and schools in the worst hit areas of the city were still without power.<sup>[27]</sup>

Seven people were confirmed to have died in Greater Houston as a result of the storm;<sup>[28]</sup> the number of deaths was later revised to eight.<sup>[4]</sup>

## Elsewhere in Texas

Elsewhere in Texas outside of Houston, much of east Texas experienced floods.<sup>[29]</sup>

## Louisiana

In the Baton Rouge, Louisiana area, numerous trees and power lines were downed, some of which landed on homes and cars. However, no injuries were reported.<sup>[30]</sup> As the derecho moved into the New Orleans area, it produced winds of more than 80 mph (128 km/h). Tornado warnings were issued in St. John the Baptist and St. Charles parishes as the storms passed through. The strong winds overturned three mobile homes at the New Orleans RV Resort and Marina, resulting in the hospitalization of four people.<sup>[31]</sup> Small aircraft and equipment at the Louis Armstrong New Orleans International Airport were damaged.<sup>[32]</sup> Minor street flooding and downed trees were reported in Covington. Downed trees blocked a lane of U.S. 90 near Live Oak, leaving only a single lane passable to traffic. <sup>[33]</sup> More than 65,000 customers lost power in Southeast Louisiana as a result of the high winds.<sup>[34]</sup>

## Confirmed tornadoes

Three EF1 tornadoes were confirmed during the event.

### May 16 event

List of confirmed tornadoes – Thursday, May 16, 2024<sup>[a]</sup>

EF#	Location	County / Parish	State	Start Coord.	Time (UTC)	Path length	Max width
EF1	SSE of Pine Island	Waller	TX	29.989°N 95.9947°W	22:44– 22:45	0.71 mi (1.14 km)	100 yd (91 m)
	A large metal barn was destroyed, with debris tossed 1,000 yd (910 m). Trailers were rolled, and trees were downed. <sup>[35]</sup>						
EF1	S of Cypress	Harris	TX	29.9232°N 95.7019°W	23:08– 23:09	0.77 mi (1.24 km)	100 yd (91 m)
	Numerous homes sustained roof damage and broken windows. <sup>[35]</sup>						
EF1	Romeville	St. James	LA	30.0695°N 90.8886°W	03:46– 03:52	5 mi (8.0 km)	120 yd (110 m)
	A tornado moved through Romeville, damaging the roofs of several frame houses and manufactured homes, snapping power poles, and snapping trees. <sup>[36]</sup>						

## See also

- List of natural disasters in the United States
- List of derecho events
- Tornadoes of 2024
- Weather of 2024

- May 2009 derecho series

## Notes

---

- All dates are based on the local time zone where the tornado touched down; however, all times are in Coordinated Universal Time for consistency.

## References

---

- Monica Danielle (May 17, 2024), *Houston storms leave 4 dead, buildings shattered and power outages may last weeks* (<https://www.accuweather.com/en/severe-weather/houston-storms-leave-4-dead-buildings-shattered-and-power-outages-may-last-weeks/1651124/amp>), AccuWeather, retrieved May 18, 2024
- Wulfeck, Andrew; Sistik, Scott (May 16, 2024). "Houston metro rocked by 100 mph derecho that left 7 dead and over 1 million without power" (<https://www.foxweather.com/weather-news/hunderstorm-damage-houston-texas>). *Fox Weather*. Retrieved May 18, 2024.
- "EF-1 tornado confirmed near Cypress, another tornado strikes SW region of Waller Co., NWS says" (<https://abc13.com/post/deadly-houston-storms-texas-weather-mayor-whitmire-judge-lin-a-hidalgo/14832550/>), *abc13.com*, KTRK-TV ABC 13, May 17, 2024, retrieved May 18, 2024
- deGrood, Matt (May 20, 2024). "Death toll from Houston severe weather rises to 8, HFD confirms" (<https://www.houstonchronicle.com/news/houston-texas/article/houston-storm-death-s-eighth-carbon-monoxide-19467955.php>). *Houston Chronicle*. Retrieved May 20, 2024.
- National Centers for Environmental Information (April 2024). "U.S. Billion-Dollar Weather and Climate Disasters" (<https://www.ncei.noaa.gov/access/billions/events/US/1980-2024>) (Press release). *Events*. Asheville, North Carolina, United States: National Oceanic and Atmospheric Administration. Archived (<https://web.archive.org/web/20240415154722/https://www.ncei.noaa.gov/access/billions/events/US/1980-2024>) from the original on April 15, 2024. Retrieved April 15, 2024.
- @NbergWX (May 17, 2024), *"Some big weather news today, the historic severe storm that started in Texas and ended in central Florida Thursday evening into Friday midday has now been designated a "derecho" wind storm. Early damage estimates are several BILLION dollars just in Houston, Texas alone. It started in Texas and ended in Florida, but the majority of the damage was in Texas, Louisiana, and the Florida Panhandle. I also plotted the Severe Storm Warnings that occurred and each icon a severe wind report."* (<https://x.com/nbergwx/status/1791638849925353931?s=46>), retrieved May 18, 2024 – via Twitter
- Branches of the National Oceanic and Atmospheric Administration; National Weather Service; National Severe Storms Laboratory (2024). "Damage Assessment Toolkit" (<https://apps.dat.noaa.gov/stormdamage/damageviewer/>). *DAT*. United States Department of Commerce.
- "NWS Houston Survey reports from severe storms 5/16" (<https://x.com/NWSHouston/status/1791556089001230787>). *X (formerly Twitter)*. Retrieved May 18, 2024.
- Helsel, Phil (May 17, 2024). "7 dead in Houston area after storms, 100 mph winds" (<https://www.nbcnews.com/news/us-news/7-dead-texas-harris-county-storms-100-mph-winds-rcna152874>). NBC News. Retrieved May 18, 2024.
- "At least 7 dead after hurricane-force winds pound Houston as power outages persist amid rising temperatures" (<https://www.cnn.com/2024/05/17/weather/flooding-south-storms-houston-friday/index.html>). CNN. May 17, 2024. Retrieved May 18, 2024.

11. Matt Mosier (May 14, 2024). "May 14, 2024 0730 UTC Day 3 Severe Thunderstorm Outlook" ([https://www.spc.noaa.gov/products/outlook/archive/2024/day3otlk\\_20240514\\_0730.html](https://www.spc.noaa.gov/products/outlook/archive/2024/day3otlk_20240514_0730.html)). Storm Prediction Center. Retrieved May 18, 2024.
12. Jeremy Grams (May 15, 2024). "May 15, 2024 1730 UTC Day 2 Convective Outlook" ([https://www.spc.noaa.gov/products/outlook/archive/2024/day2otlk\\_20240515\\_1730.html](https://www.spc.noaa.gov/products/outlook/archive/2024/day2otlk_20240515_1730.html)). Storm Prediction Center. Retrieved May 18, 2024.
13. Brynn Kerr; Brian Squitieri (May 16, 2024). "May 16, 2024 0600 UTC Day 1 Convective Outlook" ([https://www.spc.noaa.gov/products/outlook/archive/2024/day1otlk\\_20240516\\_1200.html](https://www.spc.noaa.gov/products/outlook/archive/2024/day1otlk_20240516_1200.html)). Storm Prediction Center. Retrieved May 18, 2024.
14. Rich Thompson; Emily Thornton (May 16, 2024). "May 16, 2024 1630 UTC Day 1 Convective Outlook" ([https://www.spc.noaa.gov/products/outlook/archive/2024/day1otlk\\_20240516\\_1630.html](https://www.spc.noaa.gov/products/outlook/archive/2024/day1otlk_20240516_1630.html)). Storm Prediction Center. Retrieved May 18, 2024.
15. Ryan Jewell; Rich Thompson (May 16, 2024). "Mesoscale Discussion 801" (<https://www.spc.noaa.gov/products/md/2024/md0801.html>). Storm Prediction Center. Retrieved May 18, 2024.
16. Ryan Jewell (May 16, 2024). "Mesoscale Discussion 802" (<https://www.spc.noaa.gov/products/md/2024/md0802.html>). Storm Prediction Center. Retrieved May 18, 2024.
17. Mark Darrow (May 16, 2024). "Mesoscale Discussion 806" (<https://www.spc.noaa.gov/products/md/2024/md0806.html>). Storm Prediction Center. Retrieved May 18, 2024.
18. "Houston metro rocked by 100 mph derecho that left 7 dead and over 1 million without power" (<https://www.foxweather.com/weather-news/thunderstorm-damage-houston-texas>). Fox Weather. May 17, 2024. Retrieved May 18, 2024.
19. Roberto Villalpando (May 18, 2024). "2 Houston tornadoes on Thursday each lasted only a minute but packed 100 to 110 mph winds" (<https://www.houstonchronicle.com/news/houston-weather/article/2-confirmed-tornadoes-waller-county-cypress-19465494.php>). Houston Chronicle. Retrieved May 18, 2024.
20. Mark Darrow (May 16, 2024). "Mesoscale Discussion 810" (<https://www.spc.noaa.gov/products/md/2024/md0810.html>). Storm Prediction Center. Retrieved May 18, 2024.
21. David Mitchell (May 17, 2024). "Tornado with 105 mph winds confirmed in south Louisiana parish during Thursday night storm" ([https://www.nola.com/news/weather/tornado-with-105-mph-winds-confirmed-in-st-james-thursday/article\\_d31d94d2-3bd9-5c3e-9e8d-ea1b6906e07d.html](https://www.nola.com/news/weather/tornado-with-105-mph-winds-confirmed-in-st-james-thursday/article_d31d94d2-3bd9-5c3e-9e8d-ea1b6906e07d.html)). *The Times-Picayune/The New Orleans Advocate*. Retrieved May 18, 2024.
22. Steve Goss (May 17, 2024). "Mesoscale Discussion 811" (<https://www.spc.noaa.gov/products/md/2024/md0811.html>). Storm Prediction Center. Retrieved May 18, 2024.
23. "SPC Storm Reports for 05/16/24" ([https://www.spc.noaa.gov/climo/reports/240516\\_rpts.html](https://www.spc.noaa.gov/climo/reports/240516_rpts.html)). Storm Prediction Center. May 16, 2024. Retrieved May 18, 2024.
24. Courtney Carpenter (May 17, 2024), "Downtown Houston riddled with glass after the storm tore windows out of high-rise buildings" (<https://abc13.com/post/downtown-houston-storm-damage-windows-break-in-high-rise-buildings-due-to-winds-wells-fargo-building-when-will-power-come-back/14831630/>), *abc13.com*, KTRK, retrieved May 18, 2024
25. Wulfek, Andrew (May 16, 2024). "Houston metro rocked by 100 mph derecho that left 7 dead and over 1 million without power" (<https://www.foxweather.com/weather-news/thunderstorm-damage-houston-texas>). *FOX Weather*. Retrieved May 18, 2024.
26. "Widespread power outages from deadly Houston storm raise new risk: hot weather" (<https://apnews.com/article/houston-texas-storms-power-outages-86643a6d7decd28e971774e03b52e51d>). *AP News*. May 18, 2024. Retrieved May 18, 2024.

27. "CenterPoint expects some Houston-area power outages to extend into weekend" (<https://www.houstonpublicmedia.org/articles/news/houston/2024/05/22/488337/houston-power-outages-extend-weekend-memorial-day-derecho/?amp=1>). *Houston Public Media*. May 21, 2024. Retrieved May 25, 2024.
28. John Wayne Ferguson; Matt deGroot (May 16, 2024). "At least 7 people confirmed dead in severe thunderstorm that tore through Houston, officials say" (<https://www.houstonchronicle.com/news/houston-weather/article/houston-storm-deaths-whitmire-19463017.php>). *Houston Chronicle*. Retrieved May 23, 2024.
29. Wolfe, Joe Sutton, Elizabeth (May 16, 2024). "At least 4 deaths in Houston, official says, as storms bring 'life-threatening' flood risk to Texas and Louisiana" (<https://www.cnn.com/2024/05/16/weather/south-flooding-texas-louisiana-climate/index.html>). *CNN*. Retrieved May 20, 2024.
30. *PHOTOS AND VIDEOS: Storm damage reported in BR, other areas* (<https://www.wafb.com/2024/05/17/photos-videos-storm-damage-reported-br-other-areas/>), *WAFB*, May 17, 2024, retrieved May 18, 2024
31. Michelle Hunter (May 17, 2024), "'A big hit.' Storm system that hit Houston brought 80 mph winds to New Orleans area" ([https://www.nola.com/news/weather/new-orleans-braces-for-more-storms-after-severe-weather/article\\_3905cae8-1463-11ef-8b90-97e581016002.amp.html](https://www.nola.com/news/weather/new-orleans-braces-for-more-storms-after-severe-weather/article_3905cae8-1463-11ef-8b90-97e581016002.amp.html)), *NOLA.com*, retrieved May 18, 2024
32. Erin Lowrey (May 17, 2024), *New Orleans International Airport reports storm damage* (<https://www.wdsu.com/article/new-orleans-international-airport-storm-damage/60824043>), *WDSU*, retrieved May 18, 2024
33. Erin Lowrey (May 17, 2024), *Louisiana parish-by-parish storm damage updates* (<https://www.wdsu.com/article/louisiana-parish-by-parish-storm-damage/60824310>), *WDSU*, retrieved May 18, 2023
34. *Severe weather strikes Southeast Louisiana, leaving thousands without power; closing schools* (<https://www.fox8live.com/2024/05/17/severe-weather-strikes-southeast-louisiana-leaving-thousands-without-power/>), *FOX 8*, May 17, 2024, retrieved May 18, 2024
35. National Weather Service in Houston, Texas (May 18, 2024). NWS Damage Survey for 04/16/24 Tornado Event (<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=PNSHGX&e=202405181315>) (Report). Iowa Environmental Mesonet. Retrieved May 18, 2024.
36. National Weather Service in New Orleans, Louisiana (May 17, 2024). NWS Damage Survey for 05/16/2024 Tornado Event (<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=PNSLIX&e=202405172311>) (Report). Iowa Environmental Mesonet. Retrieved May 17, 2024.

## External links

---

- The National Weather Service says a derecho storm caused the damage in SE Texas. Here's what that means (<https://www.khou.com/article/weather/severe-weather/houston-storm-damage-power-what-is-a-derecho/285-b5223a85-a207-4795-a143-0d6dbd4b0225>)
- Article on Yale Climate Connections (<https://yaleclimateconnections.org/2024/05/houston-area-walloped-by-ferocious-thunderstorm-winds/>)
- Immediate Needs Assistance Available for Storm Survivors in Texas on FEMA.gov (<https://www.fema.gov/press-release/20240519/immediate-needs-assistance-available-storm-survivors-texas>)
- 2024-05-16 Houston Derecho (<https://www.youtube.com/watch?v=BEI8JZr-NHY>)

---

Retrieved from "[https://en.wikipedia.org/w/index.php?title=2024\\_Houston\\_derecho&oldid=1229213761](https://en.wikipedia.org/w/index.php?title=2024_Houston_derecho&oldid=1229213761)"

## **Attachment C**

### **Timeline, starting at the April 23, 2024 Update and Modification hearing, and listing the events causing delay and Amplify's responses to minimize delay in getting the SCR Systems to Beta in California**

- April 23, 2024 – Status Report and Modification Hearing for Beta's Regular Variance
- Early May 2024 – Amplify Energy began receiving defective components of the SCR Systems from Amplify's contractors (in six states) at its Broussard, Louisiana Fabrication Facility
- Mid-May 2024 – In order to avoid further delay, rather than asking that the contractors correct the defects, Amplify Energy began re-work of defective components itself and continued to receive defective SCR components at its Broussard Facility
  - May 16<sup>th</sup> – Houston, Texas experienced extreme weather, causing major damage and power outages to Amplify's headquarters and to the homes of senior management, disrupting project activity associated with and causing further delay to the SCR project.
- Late May – Amplify Energy continued re-work on components of SCR Systems
  - June 2<sup>nd</sup> – severe weather hit south Louisiana causing power outages at Amplify Energy's Broussard facility and the homes of workers assigned to the re-work of the SCR Systems, further delaying the re-work operations by 4-5 days
- Mid June – Amplify Energy completed re-work on components of SCR Systems and begin quality assurance/quality control (QA/QC) and test fit of components
- Late June – Amplify Energy completed final QA/QC inspections, test fit as required and began shipping SCR System components to Beta in California.



**Beta Offshore, Case No. 5855-7**  
**Declaration in support of Petition to Modify Variance Conditions**  
**July 18, 2024**

## **Attachment D**

### **Beta's Report of Excess Emissions and Fees For the Month of May 2024**

**Note:** Pounds per day of NOx Emissions for the Rig Engines are found at the Bottom right of the First Page (158.38 lb/day) and for the Centaur Turbines at the bottom right of the Last Page (399.28 lb/day). The Total Daily NOx emissions for the Month of May 2024 is the sum of these (558 lb/day).

**Attachment D**

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	\$ 4,433.99	Excess Emissions Fee Schedule per ton of NOx, per SCAQMD Rule 303 Table 1, as amended 5/5/2023											
2	233.97	Excess NOx Emission Factor (lb/mgal) =											
3		9,190	dscf/mmBtu										
4		137	mmBtu/mgal										
5		1.195E-07	lb/scf										
6													
7	RIG ENGINES FUEL USAGE IN GALLONS - FROM MONTHLY USAGE LOGS SUBMITTED TO SCAQMD												
8													
9	Rig ICE	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
10	D81	7,134	2,844	8,279	4,879	2,898							
11	D82	4,575	7,494	10,996	6,339	8,109							
12	D83	5,064	627	3,277	7,312	8,541							
13	D84	0	0	0	0	0							
14	D85	2	0	0	0	0							
15	D86	1,104	5,328	0	0	0							
16	TOTAL	17,879	16,293	22,552	18,530	19,548							
17													
18	RIG ENGINES FUEL USAGE IN GALLONS - AS REPORTED IN RECLAIM REPORTING SUBMITTED TO SCAQMD												
19													
20	Rig ICE	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
21	D81	7,181	2,895	8,781	5,440	3,117							
22	D82	4,829	7,170	11,917	6,504	8,431							
23	D83	4,566	541	3,861	7,767	9,437							
24	D84	0	0	0	0	0							
25	D85	2	0	0	0	0							
26	D86	1,104	5,420	0	0	0							
27	TOTAL	17,682	16,026	24,559	19,711	20,985							
28													
29	APPLICABLE FUEL USAGE BASED ON HIGHEST FUEL USAGE REPORTED FROM EITHER USAGE LOG OR RECLAIM REPORTING												
30													
31	Rig ICE	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
32	D81	7,181	2,895	8,781	5,440	3,117							
33	D82	4,829	7,494	11,917	6,504	8,431							
34	D83	5,064	627	3,861	7,767	9,437							
35	D84	0	0	0	0	0							
36	D85	2	0	0	0	0							
37	D86	1,104	5,420	0	0	0							
38	TOTAL	18,180	16,436	24,559	19,711	20,985							
39													
40	EXCESS EMISSIONS FEES DUE TO SCAQMD												
41													
42	Rig ICE	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
43	D81	\$ 3,724.88	\$ 1,501.68	\$ 4,554.82	\$ 2,821.80	\$ 1,616.83							
44	D82	\$ 2,504.87	\$ 3,887.24	\$ 6,181.51	\$ 3,373.71	\$ 4,373.27							
45	D83	\$ 2,626.76	\$ 325.23	\$ 2,002.75	\$ 4,028.85	\$ 4,895.10							
46	D84	\$ -	\$ -	\$ -	\$ -	\$ -							
47	D85	\$ 1.04	\$ -	\$ -	\$ -	\$ -							
48	D86	\$ 572.66	\$ 2,811.43	\$ -	\$ -	\$ -							
49	TOTAL	\$ 9,430.21	\$ 8,525.57	\$ 12,739.08	\$ 10,224.36	\$ 10,885.20							
50													
51	EXCESS EMISSIONS, LB/DAY												
52													
53	Days per Month	31	29	31	30	31	30	31	31	30	31	30	31
54	Rig ICE	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
55	D81	54.20	23.36	66.27	42.43	23.53							
56	D82	36.45	60.46	89.94	50.72	63.63							
57	D83	38.22	5.06	29.14	60.58	71.23							
58	D84	0.00	0.00	0.00	0.00	0.00							
59	D85	0.02	0.00	0.00	0.00	0.00							
60	D86	8.33	43.73	0.00	0.00	0.00							
61	TOTAL	137.21	132.61	185.36	153.73	158.38							



\$ 4,433.99 Excess Emissions Fee Schedule per ton of NOx, per SCAQMD Rule 303 Table 1, as amended 5/5/2023

34.64 Excess NOx Emission Factor (lb/mgal) = 'Excess' NOx Exhaust Concentration (ppmv @ 15% O2) x 20.9 / (20.9 - 15) x Diesel Fd (dscf/mmBtu) x Diesel HHV (mmBtu/mgal) x NOx Conv (lb/scf)

Diesel Fd 9,190 dscf/mmBtu  
 Diesel HHV 137 mmBtu/mgal  
 NOx Conv 1.195E-07 lb/scf

193.57 lb/mmscf

Excess NOx Emission Factor (lb/mmscf) = 'Excess' NOx Exhaust Concentration (ppmv @ 15% O2) x 20.9 / (20.9 - 15) x Process Gas Fd (dscf/mmBtu) x ProcEss Gas HHV (mmBtu/mmscf) x NOx Conv (lb/scf)

Process Gas Fd 8,710 dscf/mmBtu  
 Process Gas HHV 1,050 mmBtu/mmscf  
 NOx Conv 1.195E-07 lb/scf

**SATURNS FUEL USAGE IN GALLONS (DIESEL) and MCF (PROCESS GAS) - AS REPORTED IN RECLAIM REPORTING SUBMITTED TO SCAQMD**

Saturn	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
D95 Diesel	0	0	0	0	0							
D96 Diesel	582	0	0	0	0							
D97 Diesel	24,257	0	0	0	0							
<b>TOTAL</b>	<b>24,839</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>							
Saturn	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
D95 Gas	0	0	0	0	0							
D96 Gas	4,615	0	0	0	0							
D97 Gas	1,480	0	0	0	0							
<b>TOTAL</b>	<b>6,095</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>							

**EXCESS EMISSIONS FEES DUE TO SCAQMD**

Saturn	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
D95 Diesel	\$ -	\$ -	\$ -	\$ -	\$ -							
D96 Diesel	\$ 44.70	\$ -	\$ -	\$ -	\$ -							
D97 Diesel	\$ 1,862.86	\$ -	\$ -	\$ -	\$ -							
<b>TOTAL</b>	<b>\$ 1,907.55</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>							
Saturn	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
D95 Gas	\$ -	\$ -	\$ -	\$ -	\$ -							
D96 Gas	\$ 1,980.50	\$ -	\$ -	\$ -	\$ -							
D97 Gas	\$ 635.13	\$ -	\$ -	\$ -	\$ -							
<b>TOTAL</b>	<b>\$ 2,615.63</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>							

**EXCESS EMISSIONS, LB/DAY**

Days per Month	31	29	31	30	31	30	31	31	30	31	30	31
Saturn	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
D95 Diesel	0.00	0.00	0.00	0.00	0.00							
D96 Diesel	0.65	0.00	0.00	0.00	0.00							
D97 Diesel	27.11	0.00	0.00	0.00	0.00							
<b>TOTAL</b>	<b>27.76</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>							
Days per Month	31	29	31	30	31	30	31	31	30	31	30	31
Saturn	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
D95 Gas	0.00	0.00	0.00	0.00	0.00							
D96 Gas	28.82	0.00	0.00	0.00	0.00							
D97 Gas	9.24	0.00	0.00	0.00	0.00							
<b>TOTAL</b>	<b>38.06</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>							

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	\$ 4,433.99	Excess Emissions Fee Schedule per ton of NOx, per SCAQMD Rule 303 Table 1, as amended 5/5/2023											
2	233.97	Excess NOx Emission Factor (lb/mgal) =											
3		Diesel Fd	9,190	dscf/mmBtu									
4		Diesel HHV	137	mmBtu/mgal									
5		NOx Conv	1.195E-07	lb/scf									
6													
7	RIG ENGINES FUEL USAGE IN GALLONS - FROM MONTHLY USAGE LOGS SUBMITTED TO SCAQMD												
8													
9	Rig ICE	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
10	D81	7,134	2,844	8,279	4,879	2,898							
11	D82	4,575	7,494	10,996	6,339	8,109							
12	D83	5,064	627	3,277	7,312	8,541							
13	D84	0	0	0	0	0							
14	D85	2	0	0	0	0							
15	D86	1,104	5,328	0	0	0							
16	TOTAL	17,879	16,293	22,552	18,530	19,548							
17													
18	RIG ENGINES FUEL USAGE IN GALLONS - AS REPORTED IN RECLAIM REPORTING SUBMITTED TO SCAQMD												
19													
20	Rig ICE	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
21	D81	7,181	2,895	8,781	5,440	3,117							
22	D82	4,829	7,170	11,917	6,504	8,431							
23	D83	4,566	541	3,861	7,767	9,437							
24	D84	0	0	0	0	0							
25	D85	2	0	0	0	0							
26	D86	1,104	5,420	0	0	0							
27	TOTAL	17,682	16,026	24,559	19,711	20,985							
28													
29	APPLICABLE FUEL USAGE BASED ON HIGHEST FUEL USAGE REPORTED FROM EITHER USAGE LOG OR RECLAIM REPORTING												
30													
31	Rig ICE	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
32	D81	7,181	2,895	8,781	5,440	3,117							
33	D82	4,829	7,494	11,917	6,504	8,431							
34	D83	5,064	627	3,861	7,767	9,437							
35	D84	0	0	0	0	0							
36	D85	2	0	0	0	0							
37	D86	1,104	5,420	0	0	0							
38	TOTAL	18,180	16,436	24,559	19,711	20,985							
39													
40	EXCESS EMISSIONS FEES DUE TO SCAQMD												
41													
42	Rig ICE	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
43	D81	\$ 3,724.88	\$ 1,501.68	\$ 4,554.82	\$ 2,821.80	\$ 1,616.83							
44	D82	\$ 2,504.87	\$ 3,887.24	\$ 6,181.51	\$ 3,373.71	\$ 4,373.27							
45	D83	\$ 2,626.76	\$ 325.23	\$ 2,002.75	\$ 4,028.85	\$ 4,895.10							
46	D84	\$ -	\$ -	\$ -	\$ -	\$ -							
47	D85	\$ 1.04	\$ -	\$ -	\$ -	\$ -							
48	D86	\$ 572.66	\$ 2,811.43	\$ -	\$ -	\$ -							
49	TOTAL	\$ 9,430.21	\$ 8,525.57	\$ 12,739.08	\$ 10,224.36	\$ 10,885.20							
50													
51	EXCESS EMISSIONS, LB/DAY												
52													
53	Days per Month	31	29	31	30	31	30	31	31	30	31	30	31
54	Rig ICE	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
55	D81	54.20	23.36	66.27	42.43	23.53							
56	D82	36.45	60.46	89.94	50.72	63.63							
57	D83	38.22	5.06	29.14	60.58	71.23							
58	D84	0.00	0.00	0.00	0.00	0.00							
59	D85	0.02	0.00	0.00	0.00	0.00							
60	D86	8.33	43.73	0.00	0.00	0.00							
61	TOTAL	137.21	132.61	185.36	153.73	158.38							



<b>Rig 1 - Ellen</b>	<b>D81</b>												
Date	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
1		0	0	0	436	0							
2		0	0	85	253	0							
3		0	0	0	0	87							
4		0	0	84	0	163							
5		0	0	172	0	0							
6		0	0	81	0	0							
7		0	0	103	0	0							
8		0	0	376	0	0							
9		238	0	269	0	0							
10		525	0	88	0	0							
11		484	210	301	0	0							
12		346	217	115	257	0							
13		390	0	0	419	346							
14		345	435	398	345	119							
15		472	235	570	144	0							
16		374	0	370	0	0							
17		259	277	365	0	0							
18		149	247	329	0	73							
19		0	403	132	0	71							
20		371	242	0	202	209							
21		445	205	339	495	135							
22		444	173	412	468	116							
23		439	168	207	0	0							
24		343	0	543	435	38							
25		263	0	436	497	278							
26		270	0	243	469	0							
27		266	0	359	421	168							
28		409	32	310	38	316							
29		61	0	396	0	348							
30		206		556	0	210							
31	0	35		640		221							
	0	7134	2844	8279	4879	2898	0	0	0	0	0	0	0

Note: January 2024 includes one day for 12/31/2023 as Rule 1110.2 compliance period started on 12/31/2023

Rig 1 - Ellen		D82											
Date	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
1		0	400	287	478	0							
2		0	502	140	323	182							
3		0	474	145	339	401							
4		0	499	438	0	415							
5		0	508	396	0	453							
6		0	442	290	234	468							
7		0	451	420	18	549							
8		0	495	59	322	236							
9		0	292	360	307	408							
10		61	152	357	324	105							
11		20	210	174	496	0							
12		104	117	496	547	0							
13		0	0	388	445	0							
14		0	0	358	64	244							
15		0	0	323	268	377							
16		0	158	418	489	328							
17		0	0	372	334	316							
18		270	0	279	184	251							
19		364	0	308	215	332							
20		441	84	327	82	373							
21		449	257	402	0	472							
22		445	244	541	0	225							
23		445	473	107	0	360							
24		357	474	572	0	0							
25		283	263	460	0	299							
26		290	0	253	0	408							
27		289	188	396	0	167							
28		146	417	126	349	0							
29		113	394	533	479	0							
30		308		593	42	406							
31	0	190		678		334							
	0	4575	7494	10996	6339	8109	0	0	0	0	0	0	0

Note: January 2024 includes one day for 12/31/2023 as Rule 1110.2 compliance period started on 12/31/2023

<b>Rig 1 - Ellen</b>	<b>D83</b>												
Date	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
1		456	0	221	0	497							
2		500	0	0	235	258							
3		496	0	0	431	0							
4		507	0	0	458	0							
5		454	0	41	480	0							
6		386	0	384	436	0							
7		404	0	67	180	0							
8		495	0	372	316	0							
9		429	0	0	386	324							
10		144	0	348	135	423							
11		31	0	123	678	402							
12		9	0	0	496	486							
13		0	261	0	414	149							
14		240	0	0	393	327							
15		0	0	0	420	379							
16		0	0	0	474	377							
17		0	0	0	386	367							
18		0	0	0	245	467							
19		0	0	0	253	413							
20		0	0	0	148	400							
21		0	0	91	0	247							
22		0	0	0	0	245							
23		0	0	0	0	416							
24		0	0	0	0	431							
25		0	0	496	0	268							
26		0	0	274	0	468							
27		0	0	419	0	404							
28		0	0	367	0	371							
29		0	366	74	0	403							
30		0		0	348	19							
31	474	39		0		0							
	474	5064	627	3277	7312	8541	0	0	0	0	0	0	0

Note: January 2024 includes one day for 12/31/2023 as Rule 1110.2 compliance period started on 12/31/2023

Rig 1 - Ellen		D84											
Date	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
1		0	0	0	0	0							
2		0	0	0	0	0							
3		0	0	0	0	0							
4		0	0	0	0	0							
5		0	0	0	0	0							
6		0	0	0	0	0							
7		0	0	0	0	0							
8		0	0	0	0	0							
9		0	0	0	0	0							
10		0	0	0	0	0							
11		0	0	0	0	0							
12		0	0	0	0	0							
13		0	0	0	0	0							
14		0	0	0	0	0							
15		0	0	0	0	0							
16		0	0	0	0	0							
17		0	0	0	0	0							
18		0	0	0	0	0							
19		0	0	0	0	0							
20		0	0	0	0	0							
21		0	0	0	0	0							
22		0	0	0	0	0							
23		0	0	0	0	0							
24		0	0	0	0	0							
25		0	0	0	0	0							
26		0	0	0	0	0							
27		0	0	0	0	0							
28		0	0	0	0	0							
29		0	0	0	0	0							
30		0	0	0	0	0							
31	0			0		0							
	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: January 2024 includes one day for 12/31/2023 as Rule 1110.2 compliance period started on 12/31/2023



Rig 1 - Ellen		D85											
Date	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
1		0	0	0	0	0							
2		0	0	0	0	0							
3		0	0	0	0	0							
4		0	0	0	0	0							
5		0	0	0	0	0							
6		0	0	0	0	0							
7		0	0	0	0	0							
8		0	0	0	0	0							
9		0	0	0	0	0							
10		0	0	0	0	0							
11		0	0	0	0	0							
12		0	0	0	0	0							
13		0	0	0	0	0							
14		0	0	0	0	0							
15		0	0	0	0	0							
16		0	0	0	0	0							
17		0	0	0	0	0							
18		0	0	0	0	0							
19		0	0	0	0	0							
20		2	0	0	0	0							
21		0	0	0	0	0							
22		0	0	0	0	0							
23		0	0	0	0	0							
24		0	0	0	0	0							
25		0	0	0	0	0							
26		0	0	0	0	0							
27		0	0	0	0	0							
28		0	0	0	0	0							
29		0	0	0	0	0							
30		0		0	0	0							
31	0	0		0		0							
	0	2	0	0	0	0	0	0	0	0	0	0	0

Note: January 2024 includes one day for 12/31/2023 as Rule 1110.2 compliance period started on 12/31/2023

Rig 1 - Ellen	D86												
Date	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
1		0	0	0	0	0							
2		0	0	0	0	0							
3		0	0	0	0	0							
4		0	0	0	0	0							
5		0	0	0	0	0							
6		0	0	0	0	0							
7		0	0	0	0	0							
8		0	0	0	0	0							
9		0	0	0	0	0							
10		0	0	0	0	0							
11		0	0	0	0	0							
12		0	30	0	0	0							
13		0	644	0	0	0							
14		0	666	0	0	0							
15		0	668	0	0	0							
16		0	679	0	0	0							
17		0	541	0	0	0							
18		0	592	0	0	0							
19		0	596	0	0	0							
20		0	602	0	0	0							
21		1104	310	0	0	0							
22		0	0	0	0	0							
23		0	0	0	0	0							
24		0	0	0	0	0							
25		0	0	0	0	0							
26		0	0	0	0	0							
27		0	0	0	0	0							
28		0	0	0	0	0							
29		0	0	0	0	0							
30		0	0	0	0	0							
31	0	0	0	0	0	0							
	0	1104	5328	0	0	0	0	0	0	0	0	0	0

Note: January 2024 includes one day for 12/31/2023 as Rule 1110.2 compliance period started on 12/31/2023

\$ 4,433.99 Excess Emissions Fee Schedule per ton of NOx, per SCAQMD Rule 303 Table 1, as amended 5/5/2023

79.94 Excess NOx Emission Factor (lb/mgal) = 'Excess' NOx Exhaust Concentration (ppmv @ 15% O2) x 20.9 / (20.9 - 15) x Diesel Fd (dscf/mmBtu) x Diesel HHV (mmBtu/mgal) x NOx Conv (lb/scf)

Diesel Fd 9,190 dscf/mmBtu  
 Diesel HHV 137 mmBtu/mgal  
 NOx Conv 1.195E-07 lb/scf

483.93 lb/mmscf for D98 and D100

445.21 lb/mmscf for D99

Excess NOx Emission Factor (lb/mmscf) = 'Excess' NOx Exhaust Concentration (ppmv @ 15% O2) x 20.9 / (20.9 - 15) x Process Gas Fd (dscf/mmBtu) x ProcEss Gas HHV (mmBtu/mmscf) x NOx Conv (lb/scf)

Process Gas Fd 8,710 dscf/mmBtu  
 Process Gas HHV 1,050 mmBtu/mmscf  
 NOx Conv 1.195E-07 lb/scf

**CENTAURS FUEL USAGE IN GALLONS (DIESEL) and MCF (PROCESS GAS) - FROM MONTHLY USAGE LOGS SUBMITTED TO SCAQMD**

Centaur	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
D98 Diesel	0	245	0	5,851	1,316							
D99 Diesel	4,575	16,432	2,741	790	223							
D100 Diesel	6,676	15,704	33,040	25,082	120							
<b>TOTAL</b>	<b>11,251</b>	<b>32,381</b>	<b>35,781</b>	<b>31,723</b>	<b>1,659</b>							
Centaur	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
D98 Gas	0	0	0	10,868	14,705							
D99 Gas	17,164	12,997	15,588	7,297	10,699							
D100 Gas	2,479	13,214	10,853	5,859	1,024							
<b>TOTAL</b>	<b>19,643</b>	<b>26,211</b>	<b>26,441</b>	<b>24,024</b>	<b>26,428</b>							

**CENTAURS FUEL USAGE IN GALLONS (DIESEL) and MCF (PROCESS GAS) - AS REPORTED IN RECLAIM REPORTING SUBMITTED TO SCAQMD**

Centaur	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
D98 Diesel	0	245	0	5,834	1,315							
D99 Diesel	4,581	16,412	2,743	784	232							
D100 Diesel	6,674	15,705	33,027	25,047	126							
<b>TOTAL</b>	<b>11,255</b>	<b>32,362</b>	<b>35,770</b>	<b>31,665</b>	<b>1,673</b>							
Centaur	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
D98 Gas	0	0	0	10,878	14,697							
D99 Gas	17,164	12,996	15,586	7,291	10,705							
D100 Gas	2,484	13,205	10,853	5,858	1,023							
<b>TOTAL</b>	<b>19,648</b>	<b>26,201</b>	<b>26,439</b>	<b>24,027</b>	<b>26,425</b>							

APPLICABLE FUEL USAGE BASED ON HIGHEST FUEL USAGE REPORTED FROM EITHER USAGE LOG OR RECLAIM REPORTING

Centaur	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
D98 Diesel	0	245	0	5,851	1,316							
D99 Diesel	4,581	16,432	2,743	790	232							
D100 Diesel	6,676	15,705	33,040	25,082	126							
<b>TOTAL</b>	<b>11,257</b>	<b>32,382</b>	<b>35,783</b>	<b>31,723</b>	<b>1,674</b>							

Centaur	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
D98 Gas	0	0	0	10,878	14,705							
D99 Gas	17,164	12,997	15,588	7,297	10,705							
D100 Gas	2,484	13,214	10,853	5,859	1,024							
<b>TOTAL</b>	<b>19,648</b>	<b>26,211</b>	<b>26,441</b>	<b>24,034</b>	<b>26,434</b>							

EXCESS EMISSIONS FEES DUE TO SCAQMD

Centaur	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
D98 Diesel	\$ -	\$ 43.42	\$ -	\$ 1,036.95	\$ 233.23							
D99 Diesel	\$ 811.87	\$ 2,912.19	\$ 486.13	\$ 140.01	\$ 41.12							
D100 Diesel	\$ 1,183.16	\$ 2,783.34	\$ 5,855.57	\$ 4,445.20	\$ 22.33							
<b>TOTAL</b>	<b>\$ 1,995.04</b>	<b>\$ 5,738.95</b>	<b>\$ 6,341.70</b>	<b>\$ 5,622.16</b>	<b>\$ 296.68</b>							

Centaur	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
D98 Gas	\$ -	\$ -	\$ -	\$ 11,670.68	\$ 15,776.56							
D99 Gas	\$ 16,941.35	\$ 12,828.41	\$ 15,385.80	\$ 7,202.35	\$ 10,566.14							
D100 Gas	\$ 2,665.01	\$ 14,176.91	\$ 11,643.86	\$ 6,285.95	\$ 1,098.62							
<b>TOTAL</b>	<b>\$ 19,606.36</b>	<b>\$ 27,005.32</b>	<b>\$ 27,029.66</b>	<b>\$ 25,158.98</b>	<b>\$ 27,441.32</b>							

EXCESS EMISSIONS, LB/DAY

Days per Month	31	29	31	30	31	30	31	31	30	31	30	31
Centaur	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
D98 Diesel	0.00	0.68	0.00	15.59	3.39							
D99 Diesel	11.81	45.30	7.07	2.11	0.60							
D100 Diesel	17.22	43.29	85.20	66.84	0.32							
<b>TOTAL</b>	<b>29.03</b>	<b>89.26</b>	<b>92.27</b>	<b>84.53</b>	<b>4.32</b>							

Days per Month	31	29	31	30	31	30	31	31	30	31	30	31
Centaur	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
D98 Gas	0.00	0.00	0.00	175.47	229.55							
D99 Gas	246.50	199.53	223.87	108.29	153.74							
D100 Gas	38.78	220.51	169.42	94.51	15.99							
<b>TOTAL</b>	<b>285.28</b>	<b>420.04</b>	<b>393.29</b>	<b>378.27</b>	<b>399.28</b>							

