

Databases & Tools

For E-Permitting & Enforcement

Northwest Clean Air Agency's Data Management System: **Stratus**

Crystal Rau, Air Quality Scientist
Northwest Clean Air Agency



STRATUS ?

Software To Revolutionize Activity Transparency

Utility & Synchronicity

OR

Sick & Tired of Record Anarchy? Try Using Stratus !

Clouds. Stratus Clouds.



reported
eks

entered
eks


orted (0 unassigned)
eks

COMPLIANCE



- Agricultural Burn
- Asbestos
- Complaints
- Enforcement
- Incidents
- Inspection Logs
- Outdoor Burn
- Performance Tests

SOURCES



- Add New
- Browse
- Merge Sources
- Emission Factors

REPORTS



- Activity
- Agricultural Burn
- Asbestos
- Complaints
- Compliance Reporting
- Enforcement
- Incidents
- Inspection Logs
- Outdoor Burn
- Performance Tests
- Source

0
Outdoor burn permit(s) issued
In the last 7 days

0
Agricultural permit(s) issued
In the last 7 days

3
Complaint(s) reported
In the last 2 days

Shell Puget Sound Refinery

[EDIT](#)[PRINT](#)[DELETE SOURCE](#)

PHYSICAL LOCATION SOURCE MAILING ADDRESS OWNER'S MAILING ADDRESS

STREET ADDRESS

8505 South Texas Road

CITY

Anacortes

STATE

WA

ZIP

98221

COUNTY

SK

Notes/Plant Notes

Safety PPE Requirements as of June 2017 - JB:

Hardhat (Type I, Class E & G), Safety glasses, Goggles in some areas, FR clothing (aka NOMEX), H2S monitor, Hearing protection (NRR>29), ASTM F2413-11 certified safety toed shoes
5/14/18 OAC 1301 2 new tanks- MEA

2/1/10 - PSR took ownership of MPCC

Company Names over time:

DETAILS

NAICS DETAILS

COMPANY NAME

Shell Puget Sound Refinery

SOURCE TYPE

AOP

ASSIGNED TO

Rau, Crystal

BILLING CATEGORY

V

REG NO

1005

REG DATE

6/30/1970

15

LAST INSPECTION

09/17/2019

WEBSITE URL

<http://www.shellpsr.com/>

| Source Category |
|--|
| Click here to add new item |
| Refinery |

| Source Status |
|--|
| Click here to add new item |

CONTACTS

CTRL+CLICK TO FOLLOW

| # | Contact Name | Title | EI? | Phone | Mobile | Email |
|---|--------------------------------|----------------------|--------------------------|--------------|--------------|--|
| 1 | Tim Figgie, Sr. Staff Engineer | Primary Contact | <input type="checkbox"/> | 360-293-1525 | 360-333-1583 | tim.figgie@shell.com |
| 2 | Gary Barklind | Hazardous Waste | <input type="checkbox"/> | 360-293-0868 | 360-333-1563 | gary.barklind@shell.com |
| 3 | John "Brian" Robson | Environmental Lead | <input type="checkbox"/> | 360-293-1503 | | john.robson@shell.com |
| 4 | Laura Brown | HSSE Manager | <input type="checkbox"/> | | | laura.brown@shell.com |
| 5 | Shirley Yap | General Manager (RO) | <input type="checkbox"/> | 360-293-0819 | | Shirley.Yap@shell.com |
| 6 | Front Gate | | <input type="checkbox"/> | 360-293-1701 | | |

Shell Puget Sound +

ASBESTOS

COMPLAINTS

COMPLIANCE REPORTING

CONTACTS

CORRESPONDENCE LOG

DOCS

ENFORCEMENT

EQUIPMENT

INCIDENTS

INFO

INSPECTION LOG

PERFORMANCE TESTS

TITLE V PERMITS

Shell Puget Sound Refinery

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INCIDENTS

| | Incident Type | Report Date | Start Date | Incident Description (Public Summary) | Process Unit(s) | Status |
|---|---------------|-------------|------------|---|---------------------------|------------------------|
| | Upset | 12/30/2019 | 12/30/2019 | SO2 exceedance | SRU3 | |
| | Upset | 11/20/2019 | 11/20/2019 | Upset at Cogen #2 due to ammonia fan tripped off so unit was not getting NOx cor | Cogen #2 | No excess emissions |
| | Upset | 10/30/2019 | 10/30/2019 | Problem with air blower at FCCU resulted in CO exceedance | FCCU | NEP (Non enforcement p |
| | Upset | 10/09/2019 | 10/08/2019 | Unit tripped last night & AAG feed was switched to SRU3 (in hot standby) | SRU4 | NEP (Non enforcement p |
| | Upset | 10/02/2019 | 10/02/2019 | Instrument issue on HTU1 | HTU1 | |
| > | Upset | 08/30/2019 | 07/19/2019 | Tank 36 emptied following sinking of roof to repair internal floating roof | Tank 36 light platformate | NOV |
| | Upset | 08/30/2019 | 07/23/2019 | Non-condensable material combusted in flare | FCCU, Flare | NEP (Non enforcement p |
| | Info Only | 08/21/2019 | | Startup of SRU3, introducing feed to unit | | No excess emissions |
| | Info Only | 06/08/2019 | 06/08/2019 | non-flaring event | | No excess emissions |
| | Upset | 06/05/2019 | 06/05/2019 | Low net heating value in Flare | Flare | No excess emissions |
| | Upset | 06/03/2019 | 06/01/2019 | Flare net heating value below 270 when high pressure event occurred in CRU2 relea | CRU2, Flare | No excess emissions |
| | Startup | 04/12/2019 | 04/12/2019 | High flare flow during SU of FCCU | FCCU, FLare | NEP (Non enforcement p |
| | Startup | 04/12/2019 | 04/11/2019 | H2S exceedance from short vent when conditioning/activating catalyst w/ S2 | FCCU, HTU3 | NEP (Non enforcement p |
| | Info Only | 04/01/2019 | 04/03/2019 | Notification of SU after TA | | |
| | Upset | 03/01/2019 | 03/01/2019 | Flare SO2 > 1000 ppm and 500 lbs during shutdown of FCCU | FCCU, Flare | NEP (Non enforcement p |
| | Shutdown | 02/28/2019 | 02/27/2019 | Flare BTU dropped below 270 Btu/cf | East Flare | NEP (Non enforcement p |
| | Info Only | 02/26/2019 | | Spring shutdown | | |
| | Upset | 02/05/2019 | 02/05/2019 | Problems with the FGR system resulted in fuel gas being flared | FGR | No excess emissions |
| | Upset | 02/04/2019 | 02/04/2019 | Upset due to freeze issues | SRU3 | NEP (Non enforcement p |
| | Upset | 02/04/2019 | 02/04/2019 | NOx control steam system on cogen has frozen | Cogen1 | No excess emissions |
| | Upset | 01/22/2019 | 01/21/2019 | Daily average NOx exceeded limit for Cogen2 | Cogen2 | NEP (Non enforcement p |

INCIDENTS

EDIT

PRINT

DEL

Shell Puget Sound Refinery

SOURCE

Shell Puget Sound Refinery

SELECT SOURCE

OPEN SOURCE

INCIDENT TYPE

Upset

REPORT DATE

8/30/2019 15

REPORT TIME

11:18 AM

START DATE

7/19/2019 15

START TIME

11:10 PM

END DATE

8/21/2019 15

END TIME

TAKEN BY

Armstrong, Michele

ASSIGNED EMPLOYEE

INCIDENT STATUS

NOV

INCIDENT SUMMARY FOR THE PUBLIC

Tank 36 emptied following sinking of roof to repair internal floating roof

NATURE OF INCIDENT

The floating roof on tank 36 (light platformate) sank and the tank had to be emptied.

EQUIPMENT INVOLVED (not the stack)

| Equipment |
|-----------------------------|
| Click here to add new item |
| > Tank 36 light platformate |

ESTIMATED EMISSIONS

15 tons VOC

- Report Made in Time
- Plant Wide
- Emissions Considered Unavoidable
- Report Required

SOURCE

Shell Puget Sound Refinery

8505 South Texas Road

Anacortes

WA

98221

QUICK CONTACT ADD (FROM SOURCE CONTACTS)

CONTACTS

CTRL+CLICK TO FOLLOW

| Reported By | Email | Phone | Note |
|----------------------------|--|-------|------|
| Click here to add new item | | | |
| > Tim Figgie, Sr. Staff E | tim.figgie@ | | |

INVESTIGATION SUMMARY

Investigation by Shell PSR into this incident found that nitrogen used to purge a section of piping in preparation for maintenance was routed to the tank causing the roof to sink. To repair and refloat the roof, the tank was de-inventoried. NOV 4394 was issued

CONFIDENTIAL BUSINESS INFO

- ANCE
- JRAL BURN
- ITS
- MENT
- BURN
- get Sound +
- ITS
- ANCE REPORTING
- NDENCE LOG
- MENT
- IT
- ON LOG
- ANCE TESTS
- RMITS
- JRAL BURN
- ITS
- MENT
- ON LOGS
- BURN
- ANCE TESTS
- JRAL BURN
- ITS
- ANCE REPORTING
- MENT

Compliance Report

Shell Puget Sound Refinery [EDIT](#)

TRACKING

| | Report Type | Due Date | Received Date | Deviation | Reviewed Date | Review Result | Comment |
|---|--|------------|---------------|-------------------------------------|---------------|-------------------------|--|
| > | Compliance Certification - Annual | 01/30/2020 | 02/05/2020 | <input checked="" type="checkbox"/> | 02/11/2020 | Compliance Intermittent | 2019 - intermittent compliance with Conditions 3 |
| | Leak Detection and Repair (LDAR) | 01/30/2020 | 01/31/2020 | <input type="checkbox"/> | | | 2019 2nd Half GGG,CC, VV |
| | NSPS & QQQ VOC Wastewater Systems | 01/30/2020 | 01/31/2020 | <input type="checkbox"/> | | | 2019 2nd Half VOC QQQ |
| | MACT & DDDDD NESHAPS - Boilers & Heaters | 01/30/2020 | 01/31/2020 | <input type="checkbox"/> | 02/11/2020 | In Compliance | 2019 Annual Compliance DDDDD |
| | NESHAPS & FF - Benzene Waste Quarterly | 01/30/2020 | 01/30/2020 | <input type="checkbox"/> | | | 2019 4QTR |
| | NESHAPS & FF - Benzene Waste Annual | 01/30/2020 | 01/30/2020 | <input type="checkbox"/> | | | 2019 |
| | NESHAPS & FF - Benzene Waste Annual | 01/30/2020 | 01/30/2020 | <input type="checkbox"/> | | | 2019 TAB Report |
| | Compliance Certification - Semi-Annual | 01/30/2020 | 01/30/2020 | <input type="checkbox"/> | 02/11/2020 | In Compliance | 2019 2nd Half |
| | Air Emissions Report-Annual | 01/30/2020 | 01/30/2020 | <input type="checkbox"/> | 02/11/2020 | In Compliance | 2019 GHG - 552.8 lbs CO2/MWh, 723,968 tons CO |
| | Air Emission Report - Monthly | 01/30/2020 | 01/29/2020 | <input type="checkbox"/> | | | 2019 December |
| | Deviation Report | 01/30/2020 | 01/29/2020 | <input type="checkbox"/> | | | 2019 December |
| | MACT II & UUU - Petroleum Refineries CCU, CRU, SRU | 01/30/2020 | 01/29/2020 | <input type="checkbox"/> | | | 2019 December |
| | Air Emission Report - Monthly | 12/30/2019 | 12/13/2019 | <input type="checkbox"/> | 12/23/2019 | In Compliance | 2019 November |
| | Deviation Report | 12/30/2019 | 12/13/2019 | <input type="checkbox"/> | 12/23/2019 | In Compliance | 2019 November |

REPORT SCHEDULE

| | Report Type | Interval (Months) | Next Due | Calculated Next Due | Comment |
|---|-------------------------------|-------------------|----------|---------------------|---------|
| > | Air Emission Report - Monthly | 1 | | 2/29/2020 | |

Shell Puget Sound Refinery

- [EDIT](#)
- [PRINT EQUIPMENT](#)
- [PRINT EQ \(EXCEL\)](#)
- [PRINT EQ SUMMARY \(EXCEL\)](#)
- [ADD EQUIPMENT](#)
- [ADD CEM](#)
- [ADD DEVICE](#)
- [ADD STACK](#)

- EQUIPMENT**
- CONTROL DEVICES
- EQUIPMENT GROUPS
- EQUIPMENT STACK DETAILS
- CEM_s
- PERFORMANCE TESTS

EQUIPMENT

| | Group | Description | Equipment Type | Control Device(s) | OAC(s) | Federal Reg(s) | Comments |
|---|--------------------------|--|-------------------------------|--|--------|------------------------------|----------|
| > | Vacuum Pipe Still | Gas Oil Tower Heater (1A-F4) | Heater | Gas Oil Tower Heater Low NOx burner | 929b | 40 CFR 63 DDDDD | |
| | Vacuum Pipe Still | Atmospheric Charge Heater (1A-F5) | Heater | Atmospheric Charge Heater (1A-F5) Low NOx burner | 919a | 40 CFR 63 DDDDD | |
| | Vacuum Pipe Still | Atmospheric Charge Heater (1A-F6) | Heater | Atmospheric Charge Heater (1A-F6) Low NOx burner | 919a | 40 CFR 63 DDDDD | |
| | Vacuum Pipe Still | Vacuum Charge Heater (1A-F8) | Heater | Vacuum Charge Heater (1A-F8) Low NOx burner | 684b | 40 CFR 60 J, 40 CFR 63 DDDDD | |
| | Vacuum Pipe Still | Desalter Waterwash Surge Drum Vent (1A-C46) | Other | | | 40 CFR 63 CC | |
| | Vacuum Pipe Still | Heat Exchangers in HAP service | Heater | | | 40 CFR 63 CC | |
| | Vacuum Pipe Still | Vac Pipe Still Components in VOC/HAP service | Engine - non-emergency | | | 40 CFR 60 GGG, 40 CFR 63 CC | |
| | Vacuum Pipe Still | Vacuum Pipe Still Process Drains | Other | | | 40 CFR 61 FF | |
| | Delayed Coking Unit (D | Charge Heater (15F-100) | Heater | Charge Heater (15F-100) Low NOx burner | 628d | 40 CFR 60 J, 40 CFR 63 DDDDD | |
| | Delayed Coking Unit (D | Coke Loading (LR-7) | Loading - bulk solids - truck | | | | |
| | Delayed Coking Unit (D | Coker Fractionator Overhead Accumulator Vent (15-C4) | Loading - bulk solids - truck | | | 40 CFR 63 CC | |
| | Delayed Coking Unit (D | DCU Heat Exchangers in HAP service | Heater | | | 40 CFR 63 CC | |
| | Delayed Coking Unit (D | DCU Components in VOC/HAP Service | Engine - non-emergency | | | 40 CFR 60 GGG, 40 CFR 63 CC | |
| | Delayed Coking Unit (D | DCU Process Drains | Other | | | 40 CFR 60 QQQ, 40 CFR 61 FF | |
| | Fluid Catalytic Cracking | CO Boiler (COB-1) | Boiler | CO Boiler (COB-1) Flue gas recirculation (FGR), CO Boiler (COB-1) Low NOx burner, CO Boiler (COB-1) Scrubber | 623f | 40 CFR 60 J, 40 CFR 63 UUU | |

EQUIPMENT

CONTROL DEVICES

EQUIPMENT GROUPS

EQUIPMENT STACK DETAILS

CEMs

PERFORMANCE TESTS

PERFORMANCE TESTS

ADD

| Equipment | Pollutants | Description | Planned Test Date | Actual Test Date | Results Received | Status | Next Due Date |
|---|---------------------------------------|--------------------------------|-------------------|------------------|------------------|--------|---------------|
| Truck Rack Vapor Recovery & Incinerator | Total Gaseous Organic Compounds | AOP 014R1M1 conditions 5 | 09/18/2019 | 09/18/2019 | 11/13/2019 | | 09/18/2021 |
| FCCU Wet Gas Scrubber | Particulate Matter - <10µm, Particul. | Annual Compliance Test: AC | 05/30/2019 | 05/30/2019 | 07/26/2019 | Pass | 05/30/2020 |
| CDHDS Heater (60-F201) | Oxides of Nitrogen | Testing never performed HT | 05/28/2019 | | | | 05/28/2020 |
| HTU #1 - Heaters 7C-F4 & 7C-F5 | Oxides of Nitrogen | 2- heaters, one stack. Title \ | 09/06/2018 | 10/09/2018 | 11/16/2018 | Pass | 10/09/2023 |
| FCCU West Gas Scrubber | Particulate Matter - <10µm, Particul. | Annual Compliance Test: AC | 05/08/2018 | 05/30/2018 | 07/19/2018 | Pass | 05/30/2019 |
| CDHDS Heater (60-F201) | Oxides of Nitrogen | HTU No. 3 (AOP 014R1M1 i | 04/19/2018 | 04/19/2018 | 05/25/2018 | Pass | 04/19/2023 |
| Truck Rack Vapor Recovery & Incinerator | Total Gaseous Organic Compounds | AOP 014R1M1 conditions 5 | 09/19/2017 | 09/20/2017 | 11/30/2017 | Pass | 09/20/2018 |
| FCCU West Gas Scrubber | Particulate Matter - <10µm, Particul. | Annual Compliance Test: AC | 05/10/2017 | 05/12/2017 | 06/30/2017 | Pass | 05/12/2018 |
| FCCU Wet Gas Scrubber | Particulate Matter - <10µm, Particul. | Annual Compliance Test: AC | 05/10/2016 | 05/31/2016 | 08/01/2016 | Pass | 06/30/2017 |
| Delayed Coker Unit Charge Heater(15F-100) | Oxides of Nitrogen, Oxides of Nitro | | 11/12/2015 | 11/12/2015 | 01/08/2016 | Pass | 11/12/2020 |
| Vacuum Charge Heater (1A-F8) | Oxides of Nitrogen | | 11/10/2015 | 11/10/2015 | 01/08/2016 | Pass | 11/10/2020 |
| Truck Rack Vapor Recovery & Incinerator | Total Gaseous Organic Compounds | AOP 014R1M1 conditions 5 | 10/05/2015 | 10/05/2015 | 12/03/2015 | Pass | 10/05/2017 |
| FCCU Wet Gas Scrubber | Particulate Matter - <10µm, Particul. | Feed rate during test must | 04/14/2015 | 04/14/2015 | 06/02/2015 | | 04/14/2016 |
| Hydrotreater Unit No. 2 (HTU 2) - INCONCLU! | Oxides of Nitrogen | Results are inconclusive. J. E | 03/03/2015 | 04/07/2015 | 06/02/2015 | | 04/07/2020 |
| FCCU Wet Gas Scrubber | Particulate Matter - <10µm, Particul. | Observed by T. Mahar and . | 05/20/2014 | 05/20/2014 | 07/01/2014 | | 06/20/2015 |
| Truck Rack Vapor Combustor | Total Gaseous Organic Compounds | Biennial. AOP Term 5.10.5 f | 10/25/2013 | 10/25/2013 | 11/27/2013 | | 10/25/2015 |
| HTU #1 - Heaters 7C-F4 & 7C-F5 | Oxides of Nitrogen | 2- heaters, one stack. Title \ | 09/17/2013 | 09/17/2013 | 10/31/2013 | | 09/17/2018 |
| Wet Gas Scrubber | Particulate Matter - Total | Cat Cracker feed rate > 55, | 05/21/2013 | 05/21/2013 | 06/27/2013 | | 07/21/2014 |
| Hydrotreater 3 | Oxides of Nitrogen | AOP #014; OAC 787d. Annu | 04/18/2013 | 04/18/2013 | 06/27/2013 | | 06/18/2018 |

ICIS STATUS (P/F) **Pass** REVIEWED BY **Bouwman, Jason**

TEST PLAN RECEIVED 017 15 TEST PLAN APPROVED 15

PLANNED TEST DATE 5/10/2017 15

TEST DATE 017 15 RESULTS DUE DATE 7/11/2017 15

DATE RESULTS RECEIVED 6/30/2017 15 NEXT TEST DATE 5/12/2018 15 Observed

Observed By

Click here to add new item

Air Program(s)

Click here to add new item

- NSR
- NSPS
- NESHAP

UNIT

Vest Gas Scrubber

DESCRIPTION

Compliance Test: AOP No. 014 (OAC 623f)

scrubber must be > 55,000 barrels/day

scrubber ran at 55,005

Minimum L/G ratio = 0.93 gpm/mscfh

Average during test 1.25 gpm/mscfh

COMMON POLLUTANT) OR: (ANY) AND: METHOD All

*NOTE: AT LEAST 1 POLLUTANT/METHOD ROW BELOW WILL NEED TO BE SET WITH AN ICIS STATUS IF YOU WANT THIS TO BE SUBMITTED

| Pollutant | Method | Result | Units | Limit | O2 % | Flow | H2O % | Status | Comment |
|----------------------------|--------------------------------|-----------|--------------------|-----------|------|-----------|-------|--------|---|
| Particulate Matter - <10µm | EPA Method 5 - PM - Filterable | 103.00000 | ton/yr | 202.00000 | 2.37 | 189505.00 | 22.70 | | 12-month consecutive total |
| Particulate Matter - <10µm | EPA Method 5 - PM - Filterable | 0.54000 | lb/1000 lb of coke | 1.00000 | 2.37 | 189505.00 | 22.70 | Pass | Limit in subpart J is 2.0 lb/ton of Coke: Coke burn: 43.15 1000 |
| Particulate Matter - <10µm | EPA Method 5 - PM - Filterable | 0.01080 | gr/dscf @ 7% O2 | 0.02000 | 2.37 | 189505.00 | 22.70 | | Coke burn: 43.15 1000 lb/hr |

ENFORCEMENT

| | Type | Case No | Issue Date | Noticed | Description/Notes | Deadline |
|---|------|---------|------------|------------|--|----------|
| > | OM | 4394 | 10/22/2019 | 07/19/2019 | Failure to maintain the tank 36 internal floating roof in good operating condition, resting on the stored liquid surface in a... On July 19, 2019, nitrogen, that had been used to purge piping as part of a planned maintenance outage, was allowed in... An estimated 15 tons of VOC were released due to the uncontrolled, unplanned, de-inventory of tank 36 over the course | |
| | OM | 4239 | 03/07/2017 | 11/12/2016 | Full narrative: The regularly scheduled daily calibration drift for the east flare H2S monitor (19A19) was not performed on November 12, 2016. Spare bottles are stored in cages adjacent to the racks of in-use bottles, so it was simply a matter of lining up the new bc... Running out of calibration gas is not an unforeseeable event. It was not caused by a breakdown or malfunction. This 56.7 hours of monitoring data invalidated. November 11, 2016 @ 04:13 hours (previous calibration drift check) November 13, 2016 @ 13:29 hours 56.7 hours of monitoring data invalidated Later this month, the same analyzer was inundated with water when the flare line was steamed out for cleaning and the s... 2.1.11.2 - CEMS are required to maintain greater than 90% data availability on a monthly basis 3.1.12 - Calibration drifts are required daily 5.11.8 MR&R - Install and operate CMS on flare for H2S in accordance with 40 CFR 60 Subparts A and Ja and 40 CFR 60.4 Historically, the following additional occurrences were reported at the refinery: 10/10/15 - CTG #2 daily calibration drift not performed due to low calibration gas bottle. 51.2 hours of monitoring data i... 7/11/15 - SRU4 daily calibration drift not performed due to empty calibration gas bottle. 50.9 hours of monitoring data i... 7/12/15 - VPS 4 calibration drift failed due to empty calibration gas bottle. More than 24 hours between calibrations. 28... 2/18/13 - VPS4 calibration drift failed * possibly due to low calibration gas bottle. More than 24 hours between calibratic | 3/7/2017 |
| | EL | 4207 | 07/18/2016 | 04/14/2016 | On April 14, 2016 at approximately 9:55 AM Shell failed to follow good air pollution control practices for minimizing emis... This event resulted in 13,400 pounds of excess SO2 emissions: Gases combusted in the east flare exceeded 162 ppm H2S 3-hr avg for 8 consecutive 3-hr rolling average periods (AOP 0... East flare emissions exceeded 1000 ppm SO2 1-hr avg for 1 1-hr period and SRU4 emissions exceeded 1000 ppm SO2 fo... Shell Puget Sound Refinery (Shell) failed to implement timely and appropriate repairs to the east flare (or "flare"). Instead | |

ENFORCEMENT

EDIT

PRINT

DEL

PRINT ENF. ORDER

SHELL PUGET SOUND REFINERY

NOV # 4394

VIOLATION DATE

7/19/2019

15

 Warning HAP CAO

MAIN

REGULATIONS

CORRESPONDENCE

RESOLUTION

CAO DETAILS

SOURCE [SELECT SOURCE](#) [OPEN SOURCE](#)

SITE

Shell Puget Sound Refinery

ADDRESS

8505 South Texas Road

CITY

Anacortes

STATE

WA

ZIP

98221

OWNER

Equilon Enterprises, LLC

STREET ADDRESS OR PO BOX

PO Box 622

CITY

Anacortes

STATE

WA

ZIP

98221-0622

[VIEW FINAL DOCS DIRECTORY](#)

NOV TYPE

Operation an

ISSUED DATE

10/22/2019

15

ISSUED BY

Rau, Crystal

TITLE

Air Quality Scientist

COMMENT

Failure to maintain the tank 36 internal floating roof in good operating condition, resting on its stored liquid surface to minimize emissions of volatile organic compounds (VOC) and hazardous air pollutants (HAP), resulting in an estimated 15 tons of VOC released.

DESCRIPTION

Failure to maintain the tank 36 internal floating roof in good operating condition, resting on the stored liquid surface in accordance with AOP 014R1M1 Terms 3.1.9, 3.3.3, 4.2, 5.14.43, 5.14.47, and 5.14.48.

On July 19, 2019, nitrogen, that had been used to purge piping as part of a planned maintenance outage, was allowed into the tank 36 inlet causing displacement of the roof and sinking.

An estimated 15 tons of VOC were released due to the uncontrolled, unplanned, de-inventory of tank 36 over the course of 5 days.

SOURCE

Shell Puget Sound Refinery

8505 South Texas Road

Anacortes

WA

98221

TOP SOURCE CONTACT(S)

Tim Figgie, Sr. Staff Engineer (Primary Contact) email: tim.figgie@shell.com ph: 360-293-1525

Gary Barklind (Hazardous Waste) email: gary.barklind@shell.com ph: 360-293-0868

John "Brian" Robson (Environmental Lead) email: john.robson@shell.com ph: 360-293-1503

Main Source Contact Phone(s) n:360-293-1525

High Priority Violation

This notice is provided pursuant to NWCAA Section 131 and ch. 70.94 RCW.

High Priority Vi

This notice is provided pursuant to NWCAA Se

1394

ION: 7/19/2019

Refinery Equilon Enterprises, LLC
PO Box 622
Anacortes, WA 98221-0622

CAUSE OR ALLOW AT:

Refinery, 8505 South Texas Road, Anacortes, WA

BE IN VIOLATION OF:

At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source (12/22/08).

(1) The owner or operator of any storage vessel to which this subpart applies shall store petroleum liquids as follows:

If the true vapor pressure of the petroleum liquid, as stored, is equal to or greater than 78 mm Hg (1.5 psia) but not greater than 570 mm Hg (11.1 psia), the storage vessel shall be equipped with a floating roof, a vapor recovery system, or their equivalents.

(1) (b) The owner or operator who elects to use a fixed roof and an internal floating roof, as defined in §63.111 of this subpart, to comply with the requirements of paragraph (a)(1) of this section shall comply with the requirements specified in paragraphs (b)(1) through (b)(6) of this section.

(1) The internal floating roof shall be floating on the liquid surface at all times except when the floating roof must be supported by the leg supports during the periods specified in paragraphs (b)(1)(i) through (b)(1)(iii) of this section.

Compliance with standards and maintenance requirements.

(e)(1) Operation and maintenance requirements. (1)(i) At all times, including periods of startup, shutdown, and malfunction, the owner or

CASE NUMBER: 4394

it require the owner or operator to make any further efforts. emissions if levels required by the applicable standard have achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including startup, shutdown, and malfunction plan required in paragraph of this section), review of operation and maintenance records, inspection of the source. (ii) Malfunctions must be corrected as practicable after their occurrence. To the extent that an event arises during a startup, shutdown, or malfunction, an operator must comply by minimizing emissions during such shutdown, and malfunction event consistent with safety and pollution control practices. (iii) Operation and maintenance requirements established pursuant to section 112 of the Act enforceable independent of emissions limitations or other requirements in relevant standards (4/20/06).

40 CFR 63.646(a)

Each owner or operator of a Group 1 storage vessel subject to this subpart shall comply with the requirements of § 63.119 through 63.121 except as provided in paragraphs (b) through (l) of this section.

NWCAA 322.3

Compliance. It shall be unlawful for any person to cause or permit the operation of any source subject to the requirements of Chapter 401 WAC without complying with the provisions of Chapter 401 WAC and any permit issued under its authority.

NWCAA 342.1

All air contaminant stationary sources are required to keep and/or air pollution control equipment in good operating condition and repair.

WAC 173-401-620(2)(a)

Duty to comply. The permittee must comply with all conditions of chapter 401 permit. Any permit noncompliance constitutes a violation of chapter 70.94 RCW and, for federally enforceable provisions, a violation of the FCAA. Such violations are grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

VIOLATION DESCRIPTION:

Failure to maintain the tank 36 internal floating roof in good operating condition, resting on the surface in accordance with AOP 014R1M1 Terms 3.1.9, 3.3.3, 4.2, 5.14.43, 5.14.47, and 5.14.48.

Shell Puget Sound Refinery

EDIT

COMPLAINTS

ADD COMPLAINT

VIEW

| | Complaint # | Received Date | Alleged Source | Site | Name | Assigned To | Assigned Date | Type | Action |
|---|-------------|---------------|---------------------------|---------------------------|---------------------|-------------|---------------|----------------------|----------|
| > | 33209 | 11/21/2019 | Shell Puget Sound Refiner | 8505 South Texas Road, Ar | Terri Currie | Holmquist | 11/21/2019 | Industrial Emissions | |
| | 32848 | 02/28/2019 | Shell Puget Sound Refiner | 8505 South Texas Road, Ar | Mark Lawrence | Rau | 02/28/2019 | Industrial Emissions | |
| | 32757 | 11/30/2018 | Shell Puget Sound Refiner | 8505 South Texas Road, Ar | Anthony Fox | Holmquist | 11/30/2018 | Industrial Emissions | |
| | 31715 | 10/20/2016 | Shell Puget Sound Refiner | 8505 South Texas Road, Ar | Lisa Doyle | Uhrich | 10/21/2016 | Odor | |
| | 31697 | 09/28/2016 | Shell Puget Sound Refiner | 8505 South Texas Road, Ar | Avona L'Cartier | Rau | 09/28/2016 | Industrial Emissions | |
| | 31668 | 09/10/2016 | Shell Puget Sound Refiner | 8505 South Texas Road, Ar | Cynthia Richardson | Uhrich | 09/12/2016 | Odor | SCONTACT |
| | 31637 | 08/25/2016 | Shell Puget Sound Refiner | 8505 South Texas Road, Ar | Cynthia Richardson | Holmquist | 08/26/2016 | Odor | |
| | 31603 | 08/13/2016 | Shell Puget Sound Refiner | 8505 South Texas Road, Ar | Carol Dollgof | Pratschner | 08/15/2016 | Odor | |
| | 31344 | 03/17/2016 | Shell Puget Sound Refiner | 8505 South Texas Road, Ar | Avona L'Cartier | Uhrich | 03/18/2016 | Information Call | |
| | 31223 | 12/07/2015 | Shell Puget Sound Refiner | 8505 South Texas Road, Ar | Leo osborne | Uhrich | 12/07/2015 | Odor | |
| | 31065 | 09/03/2015 | Shell Puget Sound Refiner | 8505 South Texas Road, Ar | Lisa Doyle | Uhrich | 09/03/2015 | Odor | CCONTACT |
| | 30969 | 07/24/2015 | Shell Puget Sound Refiner | 8505 South Texas Road, Ar | Dave Cater | Uhrich | 07/24/2015 | Opacity | NOA |
| | 30968 | 07/24/2015 | Shell Puget Sound Refiner | 8505 South Texas Road, Ar | Vince Streano | Uhrich | 07/24/2015 | Opacity | CCONTACT |
| | 30967 | 07/24/2015 | Shell Puget Sound Refiner | 8505 South Texas Road, Ar | Alan & Regan Weeks | Uhrich | 07/24/2015 | Opacity | UR |
| | 30966 | 07/24/2015 | Shell Puget Sound Refiner | 8505 South Texas Road, Ar | Brit Bunton | Uhrich | 07/24/2015 | Opacity | CCONTACT |
| | 30965 | 07/24/2015 | Shell Puget Sound Refiner | 8505 South Texas Road, Ar | Anthony Fox | Uhrich | 07/24/2015 | Opacity | CCONTACT |
| | 30765 | 05/20/2015 | Shell Puget Sound Refiner | 8505 South Texas Road, Ar | Suzanne Kersikofski | Uhrich | 05/20/2015 | Odor | |
| | 30754 | 05/15/2015 | Shell Puget Sound Refiner | 8505 South Texas Road, Ar | Buck Smith | Blake | 05/18/2015 | Asbestos | |
| | 30701 | 04/13/2015 | Shell Puget Sound Refiner | 8505 South Texas Road, Ar | Richard Grout | Uhrich | 04/13/2015 | Industrial Emissions | SCONTACT |
| | 30686 | 04/01/2015 | Shell Puget Sound Refiner | 8505 South Texas Road, Ar | James Caddell | Mahar | 04/01/2015 | Industrial Emissions | REF |
| | 30667 | 03/13/2015 | Shell Puget Sound Refiner | 8505 South Texas Road, Ar | Buck Smith | Pratschner | 03/16/2015 | Odor | SCONTACT |

COMPLAINT #31715

COMPLAINTS

EDIT

PRINT

DEL

SHELL PUGET SOUND REFINERY

COMPLAINANT INFORMATION

SELECT COMPLAINANT

CITY STATE ZIP
 Anacortes WA 98221

COMPANY NAME
 Doyle

ADDRESS
 1415 15th Street

EMAIL ADDRESS

NOTES

PHONE NUMBERS

| Type | Number |
|-------|--------------|
| Phone | 360 420-4207 |

SOURCE COMPLAINT HISTORY

| | |
|---|--------------------------------------|
| Shell Puget Sound Refinery 8505 South Texas Road Anacortes | Industrial Emissions CASE # 33209 |
| RECEIVED 11/21/2019 07:13 AM INSPECTED BY | |
| Shell Puget Sound Refinery 8505 South Texas Road Anacortes | Industrial Emissions CASE # 32848 |
| RECEIVED 2/28/2019 03:39 PM INSPECTED BY | |
| Shell Puget Sound Refinery 8505 South Texas Road Anacortes | Industrial Emissions CASE # 32757 |
| RECEIVED 11/30/2018 11:24 AM INSPECTED BY | |
| Shell Puget Sound Refinery 8505 South Texas Road Anacortes | Odor CASE # 31715 |

DATE RECEIVED

10/20/2016 15

TIME RECEIVED

07:15 PM

Confidential

CONFIDENTIALITY REASON

IMPACT DATE

10/20/2016 15

IMPACT TIME

07:00 PM

TAKEN BY

Armstrong, Mich

ASSIGNED TO

Uhrich, Bob

COMPLAINT TYPE

| Type |
|----------------------------|
| Click here to add new item |
| Odor |

DURATION

Answering Machine

DATE ASSIGNED

10/21/2016 15

COMPLAINT DESCRIPTION

2nd day this week can smell the refinery. Gas smell.

ALLEGED SOURCE

CHANGE SOURCE EDIT SOURCE

ALLEGED SOURCE

Shell Puget Sound Refinery

8505 South Texas Road

Anacortes WA 98221

TOP SOURCE CONTACT(S)

Tim Figgie, Sr. Staff Engineer (Primary Contact) email: tim.figgie@shell.com ph: 360-293-1525

Gary Barklind (Hazardous Waste) email: gary.barklind@shell.com ph: 360-293-0868

John "Brian" Robson (Environmental Lead) email: john.robson@shell.com ph: 360-293-1503

Main Source Contact Phone(s) p:360-293-1525

- NCE
- RAL BURN
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- ENT
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- RAL BURN
- S
- ENT
- LOGS
- BURN
- NCE TESTS
- RAL BURN
- S
- REPORTING
- ENT
- LOGS
- BURN
- NCE TESTS

ASBESTOS

ADD

VIEW

| | Notification No | Sent Date | Receive Date | Start Date | End Date | Contact Person | Contractor |
|---|-----------------|-----------|--------------|------------|------------|---------------------|----------------------|
| > | 20-104 | | 02/18/2020 | 03/01/2020 | 12/31/2020 | William Hobbins | |
| | 19-731 | | 12/16/2019 | 01/01/2020 | 12/31/2020 | Kirk Anderson | Brand Energy Solutio |
| | 19-016 | | 01/15/2019 | 01/01/2019 | 12/31/2019 | Kenneth Phipps Jr. | BrandSafway Service: |
| | 19-009 | | 01/10/2019 | 01/10/2019 | 12/31/2019 | Kenneith Phipps Jr. | |
| | 18-044 | | 01/25/2018 | 02/05/2018 | 12/30/2018 | Abel Maldonado | Safway Group |
| | 18-022 | | 01/16/2018 | 01/16/2018 | 12/31/2018 | | Brand Energy Solutio |
| | 18-023 | | 01/16/2018 | 01/16/2018 | 12/31/2018 | | Brand Energy Solutio |
| | 18-024 | | 01/16/2018 | 01/16/2018 | 12/31/2018 | | Brand Energy Solutio |
| | 18-025 | | 01/16/2018 | 01/16/2018 | 12/31/2018 | | Brand Energy Solutio |
| | 18-015 | | 01/09/2018 | 01/09/2018 | 12/31/2018 | | Safway Group |
| | 17-326 | | 07/20/2017 | 08/02/2017 | 11/27/2017 | Lamont Smith/Franci | Petrochem Insulator |
| | 16-481 | | 12/19/2016 | 01/01/2017 | 12/31/2017 | Brandon Driver | Brand Energy Solutio |
| | 16-482 | | 12/19/2016 | 01/01/2017 | 12/31/2017 | Brandon Driver | Brand Energy Solutio |
| | 16-483 | | 12/19/2016 | 01/01/2017 | 12/31/2017 | Brandon Driver | Brand Energy Solutio |
| | 16-484 | | 12/19/2016 | 01/01/2017 | 12/31/2017 | Brandon Driver | Brand Energy Solutio |
| | 16-461 | | 12/07/2016 | 12/19/2016 | 12/31/2017 | Brian Kinsman | Safway Services LLC |
| | 16-144 | | 04/18/2016 | 04/18/2016 | 12/31/2016 | Gail Gislason | Petrochem Insulator |
| | 16-005 | | 01/04/2016 | 01/01/2016 | 12/31/2016 | | Brand Energy Solutio |

ASBESTOS

EDIT

PRINT

DEL

NOTIFICATION # 19-

MAIN

INSPECTION DETAILS

RECEIVE DATE: 1/15/2019
 PAYMENT AMOUNT: \$806.00
 RECEIPT#: 1000063559
 APPROVAL DATE: 1/15/2019
 APPROVED BY: Caskey-Schreiber, Laurie

PROJECT TYPE: Annual
 SQUARE FT:
 LINEAR FT:
 ASBESTOS START: 1/1/2019
 ASBESTOS END: 12/31/2019
 DEMOLITION DATE:
 WORK SCHEDULE:
 BUILDING TYPE: Commercial

ASBESTOS START: 1/1/2019
 ASBESTOS END: 12/31/2019
 DEMOLITION DATE:
 WORK SCHEDULE:
 BUILDING TYPE: Commercial

BUILDING TYPE: Commercial
 OTHER BUILDING TYPE:
 ASBESTOS LOCATION(S):
 Class I
 Class II
 Vermiculite
 Non-friable Fee Exempt Material

Class I Class II Vermiculite Non-friable Fee Exempt Material

TYPE OF MATERIAL SCHEDULED FOR REMOVAL

Boiler insulation, pipe lagging, gaskets, Cement board (CAB), mastics

CONTROL METHODS

various

EMERGENCY REASON

Emergency

SITE: Shell Puget Sound Refinery

SITE OWNER FIRST NAME:
 SITE OWNER COMPANY NAME or LAST NAME: Equilon Enterprises, LLC
 OWNER PHONE NUMBER:
 Owner Occupied Abatement (No Contractor)

SITE NAME: Shell Puget Sound Refinery
 ADDRESS: 8505 South Texas Road
 CITY: Anacortes
 STATE: WA
 ZIP: 98221

ONSITE SUPERVISOR: Kenneth Phipps Jr.
 PHONE NUMBER: 360 319-6214

CONTRACTOR: BrandSafway Services LLC
 ATTENTION:
 ADDRESS: 535 Watt Drive Suite A
 CITY: Fairfield
 STATE: CA
 ZIP: 94534
 EMAIL ADDRESS:
 Owner Occupied Abatement (No Contractor)

INTERNAL NOTES

COMMENTS

SURVEY? SURVEY LINK

ZERO PHOTOS

PERSON COMPLETING FORM

Brian Kinsman

PHONE OF PERSON COMPLETING FORM

360 746-9183

SEND PERMIT TO THIS EMAIL

bkinsman@brandsafway.com

PREVIOUS NOTIFICATION #S

ENTERED BY: Laurie Caskey-Schreiber

AMENDMENTS

| # | Start Date | End Date | Amendment Notes | Fee |
|---|------------|----------|-----------------|-----|
|---|------------|----------|-----------------|-----|

Click here to add new item

PRINT INSPECTIONS

LAST COMPLIANCE INSPECTION

9/17/2019

15

INSPECTION PRIORITY LEVEL

High

INSPECTION LOG

| | Date | Employee | Site Visit | Type | Issue | Notes |
|---|------------|------------------|-------------------------------------|-------------------------------|--------------------------|--|
| > | 09/17/2019 | Rau, Crystal | <input checked="" type="checkbox"/> | Full Compliance Evaluation | <input type="checkbox"/> | 2019 FCE completed, covers 9/9/2016 through 6/30/2019 ICIS 10/2/19 |
| | 08/13/2019 | Rau, Crystal | <input checked="" type="checkbox"/> | Partial Compliance Evaluation | <input type="checkbox"/> | CEMs review and RATA performance ICIS 1495710 |
| | 07/22/2019 | Rau, Crystal | <input checked="" type="checkbox"/> | Partial Compliance Evaluation | <input type="checkbox"/> | Emission Inventory assumptions and calculation review ICIS 1495709 |
| | 07/15/2019 | Rau, Crystal | <input checked="" type="checkbox"/> | Partial Compliance Evaluation | <input type="checkbox"/> | RSR record review including benzene fence line monitoring and discussion of monthly reports for FCCU SU/SD, SRP S |
| | 05/22/2019 | Mahar, Toby | <input checked="" type="checkbox"/> | Partial Compliance Evaluation | <input type="checkbox"/> | Regional Haze (w/ S. Inloes ECY) NSPS Subpart Ja (ICIS #1475799) |
| | 03/06/2019 | Pratschner, Sco' | <input checked="" type="checkbox"/> | Asbestos Inspection | <input type="checkbox"/> | FCCU northside turnaround abatement (ICIS #1465204) |
| | 12/11/2018 | Rau, Crystal | <input checked="" type="checkbox"/> | Partial Compliance Evaluation | <input type="checkbox"/> | BWN Manhole inspections with Bob Uhrich (TVA) (ICIS #1465203) |
| | 11/27/2018 | Rau, Crystal | <input checked="" type="checkbox"/> | Partial Compliance Evaluation | <input type="checkbox"/> | LDAR audit at Alky2 with Bob Uhrich (TVA) (ICIS #1465202) |
| | 05/30/2018 | Rau, Crystal | <input checked="" type="checkbox"/> | Partial Compliance Evaluation | <input type="checkbox"/> | FCCU stack test observation and partial compliance inspection of FCCU and WGS |
| | 05/29/2018 | Pratschner, Sco' | <input checked="" type="checkbox"/> | Asbestos Inspection | <input type="checkbox"/> | 18-044 follow up insp, no issues observed (ICIS #1448069) |
| | 04/12/2018 | Rau, Crystal | <input type="checkbox"/> | Partial Compliance Evaluation | <input type="checkbox"/> | East Flare Tip removed from site - review of molecular seal repairs from October 2015 turnaround while at Skagit Ste |
| | 03/07/2018 | Pratschner, Sco' | <input checked="" type="checkbox"/> | Asbestos Inspection | <input type="checkbox"/> | 18-044, hydrotreater 1 abatement, no issues observed (ICIS #1448067) with Crystal Rau (PCE) |
| | 10/09/2017 | Rau, Crystal | <input checked="" type="checkbox"/> | Partial Compliance Evaluation | <input type="checkbox"/> | PSD applicability VPS PI OAC 1253, HTU3 OAC 787f, future crude storage tank #503 (ICIS #1413590) |
| | 09/29/2017 | Rau, Crystal | <input checked="" type="checkbox"/> | Partial Compliance Evaluation | <input type="checkbox"/> | Tank #24 product on roof, VPS PI construction OAC 1253 (ICIS #1413590) |
| | 05/18/2017 | Rau, Crystal | <input checked="" type="checkbox"/> | Partial Compliance Evaluation | <input type="checkbox"/> | ARUs & SRUs & Sulfur Pits (ICIS #1406409) |
| | 03/08/2017 | Rau, Crystal | <input checked="" type="checkbox"/> | Partial Compliance Evaluation | <input type="checkbox"/> | Amine Cleaning by CCR. (ICIS # 1406409) |
| | 01/19/2017 | Pratschner, Sco' | <input checked="" type="checkbox"/> | Asbestos Inspection | <input type="checkbox"/> | 16-461, VPS unit (ICIS #1387667) |

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|--------------------------------|------|--------------------|------------|-----------------------|---|----|
| Performance Tests | 1878 | Partial Compliance | 12/6/2018 | Bob Ginnch | Air Liquide L.P. | -1 |
| t | 1005 | Partial Compliance | 11/27/2018 | Crystal Rau | Shell Puget Sound Refinery | -1 |
| ion Log | 1005 | Partial Compliance | 12/11/2018 | Crystal Rau | Shell Puget Sound Refinery | -1 |
| | 1878 | Partial Compliance | 2/21/2019 | Matt Holmquist | Air Liquide L.P. | -1 |
| | 1915 | Partial Compliance | 4/1/2019 | Christos Christoforou | Sierra Pacific Industries -Skagit Lumber Facility | -1 |
| Compare Issue Date with P... | 1004 | Partial Compliance | 5/20/2019 | Toby Mahar | Phillips 66 Company | -1 |
| ayment | 1011 | Partial Compliance | 5/21/2019 | Toby Mahar | BP West Coast Products LLC | -1 |
| egulations Cited | 1005 | Partial Compliance | 5/22/2019 | Toby Mahar | Shell Puget Sound Refinery | -1 |
| or Burning Permit | 1813 | Partial Compliance | 4/30/2019 | Crystal Rau | Pacific Woodtech Corporation | -1 |
| Equipment | 1813 | Partial Compliance | 6/5/2019 | Crystal Rau | Pacific Woodtech Corporation | -1 |
| Equipment Address NAI... | 1878 | Partial Compliance | 6/5/2019 | Matt Holmquist | Air Liquide L.P. | -1 |
| Equipment CFR | 1638 | Partial Compliance | 6/14/2019 | Christos Christoforou | Puget Sound Energy - Encogen Generating Station | -1 |
| Equipment Control Device | 1158 | Partial Compliance | 6/17/2019 | Dan Mahar | NAS Whidbey Island | -1 |
| Equipment Control Devi... | 1158 | Partial Compliance | 2/27/2019 | Dan Mahar | NAS Whidbey Island | -1 |
| Equipment for OAC | 1310 | Partial Compliance | 7/3/2019 | Christos Christoforou | Puget Sound Energy - Whitehorn Generating | -1 |
| red Source NAICS and Pr... | 1667 | Partial Compliance | 7/12/2019 | Christos Christoforou | Puget Sound Energy - Ferndale Generating Station | -1 |
| red Sources without Equ... | 1005 | Partial Compliance | 7/15/2019 | Crystal Rau | Shell Puget Sound Refinery | -1 |
| Assigned To Staff Mem... | 1917 | Partial Compliance | 7/22/2019 | Matt Holmquist | Praxair Inc. | 0 |
| oating by NAICS | 1006 | Partial Compliance | 7/11/2019 | Lyn Tober | Tesoro Refining & Marketing Company LLC | -1 |
| oating Equipment | 1006 | Partial Compliance | 7/25/2019 | Lyn Tober | Tesoro Refining & Marketing Company LLC | -1 |
| oating Facility Emails for ... | 1006 | Partial Compliance | 7/31/2019 | Lyn Tober | Tesoro Refining & Marketing Company LLC | -1 |
| oating Facility Emails for ... | 1637 | Partial Compliance | 7/29/2019 | Christos Christoforou | Puget Sound Energy - Sumas Generating Station | -1 |
| ests for 4 Facilities | 1011 | Partial Compliance | 7/16/2019 | Robyn Jones | BP West Coast Products LLC | -1 |
| ests OIG Audit - Methods... | 1005 | Partial Compliance | 7/22/2019 | Crystal Rau | Shell Puget Sound Refinery | -1 |
| ests OIG Audit - Stack Tes... | 1005 | Partial Compliance | 8/13/2019 | Crystal Rau | Shell Puget Sound Refinery | -1 |
| ic Minor | 1383 | Partial Compliance | 8/26/2019 | Christos Christoforou | Puget Sound Energy - Fredonia Generating | -1 |
| Smoke Residents | 1006 | Partial Compliance | 7/25/2019 | Lyn Tober | Tesoro Refining & Marketing Company LLC | -1 |
| Smoke Residents in Mapl... | 1440 | Partial Compliance | 8/16/2019 | Jason Bouwman | Northwest Pipeline LLC-M.V. | -1 |
| Sources | 1434 | Partial Compliance | 8/29/2019 | Jason Bouwman | Northwest Pipeline LLC-Sumas | -1 |
| n Addresses | 1384 | Partial Compliance | 10/16/2019 | Scott Pratschner | Paccar Technical Center | 0 |
| s QTRLY | 1006 | Partial Compliance | 12/20/2019 | Lyn Tober | Tesoro Refining & Marketing Company LLC | -1 |
| | 1007 | Partial Compliance | 12/23/2019 | Rebecca Brown | Lehigh Northwest Cement Company | -1 |
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- InspectionLogID
- DirectoryIDFK
- DirectoryName
- RegNo
- DirectoryDeleted
- TitleV
- SyntheticMinor
- LogDate
- EmployeeIDFK
- EmployeeName
- LogNote
- OnSite
- InspectionTypeIDFK
- InspectionType
- InactiveType
- ReportableType
- Issue
- InternalNote
- ResidentialInspectionActionIDFK
- ResidentialInspectionAction
- Opacity



| Field: | RegNo | InspectionType | LogDate | EmployeeName | DirectoryName | TitleV | SyntheticMinor | | |
|-----------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|
| Table: | InspectionLog | InspectionLog | InspectionLog | InspectionLog | InspectionLog | InspectionLog | InspectionLog | | |
| Sort: | | | | | | | | | |
| Show: | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Criteria: | | Like **Partial** | >=#10/1/2018# | | | Yes | | | |
| or: | | Like **Partial** | >=#10/1/2018# | | | | Yes | | |
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Stratus Technical Information

- Window-based application using Windows Presentation Foundation (WPF)
- Written in Visual Basic .NET.
- Data stored in SQL Server 2017 Database
- Customized reports are SQL Server Reporting Services reports
- Populates Outlook messages, Word templates, and Excel spreadsheets

Details

- For a nominal fee, NWCAA can provide: an empty database. All reference to NWCAA, agency logos, & staff removed from source code & templates
- New user data enters their source information into code tables
- No support for the system offered

Development Stats

- 2010 – 2018: Consultants + Staff = \$1,680,000
(~ \$210,000/yr)
- 2018 – Present: In-house Developer + Staff = \$236,000
(~ \$118,000/yr)
- Budget: ~ \$100,000/yr Development & Maintenance
If just maintenance, ~ \$25,000/yr