

BWON Enforcement Update

February 27, 2025

Dawn Neal, TRICORD Consulting, LLC

Agenda

- ▶ Where have we been?
 - ▶ New BWON Consent Decrees – Overview and Comparisons
- ▶ EPA enforcement initiatives – Where are we (and they) now?
- ▶ Where are we going?

The Last Five Years...

- ▶ Dozens of facility inspections took place in the last 5 years
- ▶ Many of these are in active enforcement negotiations
 - ▶ Pending...but now paused (this does not apply across the board)
- ▶ Audits led by EPA (Kosta) and NEIC (Matt)
- ▶ New BWON Consent Decree Settlement
 - ▶ 2023: BP Whiting
 - ▶ 2024: Cenovus Lima
 - ▶ 2025: HF Sinclair Navajo - Artesia

Current Interpretations...or “Say What?!”

- ▶ Logic seems to be:
 - ▶ Leaks should be found by means other than those required by regulation
 - ▶ A single leak is a violation
 - ▶ A leak means the equipment is uncontrolled
 - ▶ Uncontrolled means change to BQ calculation
- ▶ Contrary to historical precedent and past enforcement
- ▶ Also...don't hold on to any of those actual documented Agency interpretations...

Recent Consent Decree Comparison: The Not-So-Great, The Bad, and The Ugly

| BP Whiting CD | Lima Refining Company CD | HF Sinclair Navajo Artesia |
|-------------------------------------|--|--|
| Civil penalty: \$31,000,000 | Civil penalty: \$19,000,000 | Civil penalty: \$34,000,000 |
| Supplemental Environmental Projects | No Supplemental Environmental Projects | No Supplemental Environmental Projects |

| BP Whiting CD | Lima Refining Company CD | HF Sinclair Navajo Artesia |
|--|---|---|
| Initial Monitoring Requirements | | |
| <p>12 consecutive months</p> <ul style="list-style-type: none"> - Monthly M21 monitoring - Monthly OGI monitoring <ul style="list-style-type: none"> o Confirmatory M21 monitoring w/in 1 day of OGI emission observation. o Includes IFR tank breather vents and fixed roof deck fittings. - Weekly walkthrough inspections of Lakefront BWON equipment. - Monthly walkthrough inspections of all other BWON/QQQ equipment. - M21, OGI and walkthrough inspections may be completed independently or concurrently. <p>Mobile container monitoring plan for enhanced monitoring of vac trucks and mobile waste containers.</p> | <p>12 consecutive months</p> <ul style="list-style-type: none"> - Quarterly M21 monitoring - Semi-annual OGI monitoring <ul style="list-style-type: none"> o Confirmatory M21 monitoring w/in 1 day of OGI emission observation. o Includes IFR tank breather vents and fixed roof deck fittings. - Quarterly visual inspections - M21 and visual inspections may be completed independently or concurrently. OGI inspections shall not be conducted concurrently with Method 21 and visual inspections. | <p>12 Consecutive months</p> <ul style="list-style-type: none"> • Varies by equipment type and rule - Monthly M21 monitoring of WWTP - Quarterly M21 of other components - Quarterly OGI monitoring <ul style="list-style-type: none"> o Confirmatory M21 monitoring w/in 1 day of OGI emission observation. o Includes IFR tank breather vents and fixed roof deck fittings. - Monthly AVO inspections of WWTP - Quarterly visual inspections – others - Quarterly M21 & OGI on Concrete junction box Excavation required for junction boxes not surrounded by concrete to identify source within 45 days. |

| BP Whiting CD | Lima Refining Company CD | HF Sinclair Navajo Artesia |
|---|--|---|
| Ongoing Monitoring Requirements | | |
| <ul style="list-style-type: none"> - Quarterly OGI monitoring - Quarterly junction box monitoring/100 ppm leak threshold <ul style="list-style-type: none"> - Excavation required for junction boxes not surrounded by concrete to identify source within 20-45 days. | <ul style="list-style-type: none"> - Semi-annual OGI monitoring | <ul style="list-style-type: none"> - Quarterly M21 monitoring of WWTP - Semiannual OGI on other equipment |

| BP Whiting CD | Lima Refining Company CD | HF Sinclair Navajo Artesia |
|--|--|---|
| Ambient Monitoring Requirements | | |
| <ul style="list-style-type: none"> - Four monitoring stations added at BP Whiting near wastewater treatment plant equipment. - BP Whiting required to measure toluene and xylene in addition to benzene at ALL of their MACT CC monitoring stations. | <ul style="list-style-type: none"> - Two monitoring stations added at LRC near wastewater treatment plant equipment; <ul style="list-style-type: none"> o benzene, toluene, and xylene. | <ul style="list-style-type: none"> - Five monitoring stations added at Navaho near wastewater treatment plant equipment; <ul style="list-style-type: none"> o Benzene only |
| <p>Consultation with interested community members required on proposed locations. Sample results to be made available to public via a readily accessible website. Once per year summa canister sampling at each of the community stations.</p> | | |

| BP Whiting CD | Lima Refining Company CD | HF Sinclair Navajo Artesia |
|---|--|---|
| Benzene Emission Reduction Activities and Capital Projects | | |
| <ul style="list-style-type: none"> - Interim use of SWS; effluent limit of 2.0 ppmw - Desalter brine pilot study/interim treatment system - New permanent “Benzene Control System” comprised of existing SWS and new benzene strippers; effluent limit of 2.0 ppmw | <ul style="list-style-type: none"> - Benzene flash column to treat desalter effluent - New pressure vessel designed induced gas flotation units - Lift station upgrades - Equalization tank upgrade/elimination - EBU performance test - FGRS evaluation/improvements - New blowers - Vent replacement program | <ul style="list-style-type: none"> - Upgrade WWTP lift station, junction box, sump, API lids - Upgrade gasket material on APIs - Controls installation at Tank Water Draw sumps - Existing Sour Water Stripper; interim effluent limitation of 8 ppm - New Sour Water Stripper; effluent limitation of 2 ppm - Upgrade Groundwater Recovery hydrocarbon tanks |
| <p>Sewer System Evaluation</p> <ul style="list-style-type: none"> - Complete a review/inventory/corrections of current compliance strategy for all IDS components. | <p>No analogous sewer evaluation requirement in the LRC CD</p> | <p>Sewer System Evaluation and Mapping</p> <ul style="list-style-type: none"> - Complete a review/inventory/corrections of current compliance strategy for all IDS components. |

| BP Whiting CD | Lima Refining Company CD | HF Sinclair Navajo Artesia |
|--|--|---|
| Third Party Audits | | |
| <ul style="list-style-type: none"> - By no later than 24 months after the Effective Date, and every two years thereafter until termination of the Consent Decree, BPP shall conduct a third-party BWON/QQQ Audit - BP Whiting shall conduct no fewer than three BWON/QQQ Audits prior to termination of this Consent Decree. | <ul style="list-style-type: none"> - Within 12 months of the Effective Date, and no sooner than every 24 months thereafter, LRC shall conduct a third-party BWON/QQQ Audit - LRC is required to complete no fewer than three BWON/QQQ Audits, except that the third and/or final audit shall be conducted after all capital projects in Section M are completed and operational. | <ul style="list-style-type: none"> - By no later than 24 months after the Effective Date, and every two years thereafter until termination of the Consent Decree, BPP shall conduct a third-party BWON/QQQ Audit - Audits include partial waste stream revalidations - BP Whiting shall conduct no fewer than three BWON/QQQ Audits prior to termination of this Consent Decree. |
| <p>Both CDs have similar language on audits including limiting the use of third-party contractor auditors that have been involved with implementing CD requirements, audit leak percentages/ratios, corrective action plans, etc.</p> | | |

More, you say?

- ▶ Development of written program document
 - ▶ Robust document that contains and memorializes all program information
 - ▶ Annual update of document
- ▶ NDE Engineering Assessments
 - ▶ 3rd Party required for new and upgraded equipment
 - ▶ Annual review for new low-leak technology
- ▶ Use of Low-E Valves in NDE systems
- ▶ Root cause analysis on deficiencies that occur on NDE equipment
- ▶ Vacuum Truck Carbon Canister systems
- ▶ Application of treatment standards or concentration limit on stripper/flash drum effluent
- ▶ Training for all individuals for operating and/or visually inspecting BWON and NSPS QQQ Equipment

BWON and NSPS QQQ...Just an Appetizer

HF Sinclair Consent Decree Requirements Include:

- ▶ App. A: Wastewater (BWON, NSPS QQQ, as well as ambient monitoring at WWTP, and emissions controls on WWTP equipment downstream of BWON/QQQ applicability)
- ▶ App. B: LDAR
- ▶ App. C: eGC, Enhanced Passive Monitoring, Community Monitoring
- ▶ App. D: FGRS (flares)
- ▶ App. E: Storage Tanks
- ▶ App. F: Heat Exchangers (this covers both Cooling Water AND non-Cooling Water Exchangers)
- ▶ App. G: Emissions Testing (FluxSense)
- ▶ App. H: LDSN (Leak Detection Sensor Network, aka Molex)

So, Now What?

- ▶ Inconsistent guidance from Agency personnel on path forward
- ▶ Several inspections have taken place in 2025
- ▶ There have been rumblings on increased focus in the state of Texas.
- ▶ NOTE: Not all of these are being led by Matt and Kosta
 - ▶ Agency efforts in 2022-2024 focused on training of personnel
 - ▶ Other EPA Regions and NEIC enforcement personnel are now leading audits

What to Expect When You Are Expecting...a Visit

- ▶ New inspection lead personnel will no doubt lead to exciting new opinions and interpretations!
- ▶ Emphasis still seems to be in the refining and petrochemical space.
- ▶ Continued focus on controls and integrity of controlled systems.
- ▶ Continuing to deploy all the tools!

What Can *You* Do?

- ▶ Know your Reports!
- ▶ Know your Systems!
- ▶ Know Where You Stand!

Words of Caution

- ▶ Enforcement will not go away...
- ▶ Requirement is to remain in continuous compliance, at all times, not just during required periodic inspections
- ▶ There are several areas with which industry does not agree with EPA and NEIC interpretations (often referred to as “the 5%”)
 - ▶ There is probably even more than that within industry, and even within the Agency.
 - ▶ Roughly 50 or more individual “Regulatory Gray Area” topics in BWON and NSPS QQQ.

Questions?

Dawn Neal

Cell: (832) 954-3943

E-mail: Dawn.Neal@TRICORDConsulting.com