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conservation law foundation

For a thriving New England

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Via Registered Mail and Certified Mail, Return Receipt Requested

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Shell Oil Company
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Shell Petroleum, Inc.
910 Louisiana Street
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RE: Notice of Intent to File Suit for Violations of the Resource Conservation and Recovery Act and Clean Water Act at the Providence Terminal

To Whom It May Concern:

Conservation Law Foundation ("CLF")[1] hereby notifies Shell Oil Products US (together with Shell Oil Company, Shell Petroleum, Inc., Shell Trading (US) Company, Royal Dutch Shell plc, and Motiva Enterprises LLC (hereinafter, "Shell")) of its intent to commence a civil action under Section 7002(a)(1)(B) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6972(a)(1)(B), and Section 505 of the Clean Water Act ("CWA"), 33 U.S.C. § 1365, for violations of RCRA, 42 U.S.C. § 6901 *et seq.*, and the CWA, 33 U.S.C. § 1251 *et seq.*, at Shell's bulk storage and fuel terminal located at 520 Allens Avenue in Providence, Rhode Island (the "Providence Terminal").[2] Unless Shell adequately resolves the violations of RCRA and the CWA

[1] CLF is a 501(c)(3) nonprofit, member-supported organization dedicated to the conservation and protection of New England's environment.

[2] Formerly the Motiva Enterprises, LLC Providence Terminal. Motiva Enterprises, LLC was a Joint Venture between Royal Dutch Shell plc and Saudi Aramco (through its subsidiary Saudi

described herein, CLF intends to file suit against Shell in the United States District Court for the District of Rhode Island to secure appropriate relief under federal and state law for these violations.

I. The Providence Terminal

Shell, acting through officers, managers, subsidiary companies, and instrumentalities, owns or has owned and/or operates or has operated the Providence Terminal, which consists of "tank farms," an ethanol railcar terminal, a marine terminal, buildings, and infrastructure located at 520 Allens Avenue in Providence, Rhode Island. The Providence Terminal is located on the Providence River, in the Providence Harbor, and at the head of Narragansett Bay.

The Providence Terminal is engaged in the receipt, storage, and distribution of petroleum products. The spectrum of fuels handled by this facility consists of motor gasoline, fuel grade ethanol, fuel oil, jet fuel, fuel additives, and diesel. The facility contains twenty-five refined petroleum product storage tanks. Six of the tanks are utilized for ethanol storage. The Providence Terminal processes both neat ethanol and fuel ethanol, and receives and processes off-spec gasoline, gasoline blending stock, and dimate (hexane) to produce saleable gasoline. Fuel products are received at the marine terminal area of the Providence Terminal via ships and barges and shipped from the Providence Terminal via trucks or barges. The ethanol is transferred into and transported off-site via ethanol railcars.

The Federal Emergency Management Agency ("FEMA") flood map for the area where the Providence Terminal is located, which was last revised in September 2013, shows that almost all of the Providence Terminal is within the flood hazard zone. The portion of the Providence Terminal located to the east of Allens Avenue is designated as one of the "Special Flood Hazard Areas (SFHAs) Subject to Inundation by the 1% Annual Chance Flood." "The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year." Most of the western portion of the Providence Terminal (to the west of Allens Avenue) is designated as "Other Flood Areas." The "Limit of Moderate Wave Action," which "represents the approximate landward limit of the 1.5-foot breaking wave," is located *behind* the group of storage tanks closest to the Providence River.

II. Climate Change and The Providence River

The present flood risks at the Providence Terminal demonstrated by the FEMA map are, and will continue to be, exacerbated by sea level rise, increased precipitation, increased magnitude and frequency of storm events, and increased magnitude and frequency of storm surges—all of which will become, and are becoming, worse as a result of climate change. According to the Third National Climate Assessment, "[s]ea level rise of two feet, without any changes in storms, would

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Refining, Inc.). Shell formally announced the completion of the dissolution of Motiva Enterprises, LLC on May 1, 2017. Per the agreement, Shell will maintain control over the Northeastern region of the U.S., including ownership of the Providence Terminal. References to Shell herein include any predecessors, successors, parents, subsidiaries, affiliates, and divisions of Shell, including Motiva Enterprises. *See* Shell Global, *Shell Announces the Completion of Transaction to Separate Motiva Assets* (May 1, 2017).

more than triple the frequency of dangerous coastal flooding throughout most of the Northeast."[3] Since 1900, sea level has already risen approximately one foot in the Northeast, at a rate that is 8 inches above the global average.[4] From 1895 to 2011, the Northeast sustained a temperature increase of 2°F and a 10% increase in precipitation (5 inches), and from 1958 to 2010, precipitation intensity during heavy events increased by 70%.[5] The location, elevation, and lack of preventative infrastructure at the Terminal make it especially vulnerable.

The Providence River's shoreline has evolved over more than two centuries of development and landfill. From 1939 to 2003, the site containing the Providence Terminal's east side tank farm expanded by as much as 112.26 m (368.3 ft) into the Providence River.[6] Situated on backfill, the Providence Terminal is at risk from coastal flooding caused by sea level rise, increased precipitation, increased magnitude and frequency of storm events, and increased magnitude and frequency of storm surges—all of which will become, and are becoming, worse as a result of climate change.

In 2005, FEMA described the Metro Bay Region—which includes 24 miles of shoreline along Cranston, East Providence, Providence, and Pawtucket, including the Providence Terminal—as "'the Achilles' heel of the Northeast' due to its vulnerability to flooding."[7] The region faces increasingly frequent and intense storms caused by rising temperatures, sea levels, and precipitation rates. From 1905 to 2006, Rhode Island experienced a 1.7° F increase in air temperature, and since the 1960s, water temperature measured in Narragansett Bay increased by 4° F.[8] Since 1930, sea level has risen at the local tide gauges in Newport, Rhode Island by 8 inches, at a rate of 2.68 mm per year.[9] Rhode Island's precipitation rate increased by 30% over the last century,[10] by 3 mm per year.[11]

The Port of Providence, located within the Metro Bay Region on the Providence River, is directly at risk from these impacts. A University of Rhode Island ("URI") research team funded by the Rhode Island Department of Transportation examined the vulnerabilities of the Port of Providence to impacts including storm surge, sea level rise, and increased frequency and strength in storms. The research team found that since 1851, 37 hurricanes have come within 50 miles of

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[3] Radley Horton et al., *Ch. 16: Northeast, in* CLIMATE CHANGE IMPACTS IN THE UNITED STATES: THE THIRD NATIONAL CLIMATE ASSESSMENT (J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, eds., U.S. Global Change Research Program) (2014).
[4] *Id.*
[5] *Id.*
[6] Rhode Island Coastal Resources Management Council, *Shoreline Change Maps, Narragansett Bay, Rhode Island: Providence, Fox Point Reach* (June 1, 2017).
[7] *Natural Hazards: Hurricanes, Floods, and Sea Level Rise in the Metro Bay Region, Special Area Management Plan, Analysis of Issues and Recommendations for Action* (2009).
[8] Heffner, et al., URI, *Climate Change & Rhode Island's Coast: Past, Present and Future* (2012).
[9] *Id.*
[10] *Id.*
[11] *Rhode Island Ocean Special Area Management Plan, Chapter 3: Global Climate Change* (2011).

Rhode Island on a "4 year return period."[12] When accounting for climate change impacts, such as increased frequency and intensity of storms, as well as sea level rise, a "1 in 100 year storm scenario could become a 1 in 3 year storm scenario."[13] On August 3, 2015, these findings were presented at a stakeholder workshop, which was attended by a representative of the Providence Terminal.[14] At the workshop, the researchers presented a storm scenario and depicted the consequences of a modeled Category 3 Hurricane on the Port of Providence.[15] The research concluded that such a storm would leave the Providence Terminal flooded.[16] The workshop also included a discussion on resiliency adaptation strategies, which ranged from relocation to site-specific improvements. [17]

As the world's fifth largest company by revenue and second largest oil and gas company,[18] Shell has played a major role in causing anthropogenic climate change that is resulting in a greater frequency of storm surges, extreme weather events, and rising sea levels. Shell has been aware of this since at least 1986, when it circulated an internal document acknowledging that with "fossil fuel combustion being the major source of CO2 in the atmosphere, a forward looking approach by the energy industry is clearly desirable."[19] Just three years later, in 1989, Shell announced the company's decision to account for sea level rise in the construction of a natural-gas production platform in the North Sea.[20] In 1991, Shell published the educational film, "Climate of Concern," cautioning against the risks of climate change.[21]

For over 40 years, Shell has developed "scenarios" in order to "make crucial choices in uncertain times and tackle tough energy and environmental issues."[22] Since the 1990s, Shell has been contributing these "scenarios" to other organizations, including the Intergovernmental Panel on Climate Change.[23] Shell was also an early member of the Global Climate Coalition ("GCC"), but withdrew its membership in April 1998 when the GCC began lobbying against establishing legally binding targets and timetables in the Kyoto Protocol.[24] Shell has continued to publicly

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[12] Special House Commission to Study Economic Risk Due to Flooding and Sea Level Rise (May 12, 2016), submitted to the Rhode Island House of Representatives.
[13] *Id.*
[14] Austin Becker, *Hurricane Resilience: Long-Range Planning for the Port of Providence* (2015) (*see* list of 28 participants, at 5).
[15] *Id.*
[16] *Id.*
[17] *Id.*
[18] *Global 500: Royal Dutch Shell*, FORTUNE (2016); Lauren Gensler, *The World's Largest Oil and Gas Companies 2017: Exxon Reigns Supreme, While Chevron Slips*, FORBES (May 24, 2017).
[19] Shell Internationale Petroleum, *The Greenhouse Effect* (1986).
[20] *Greenhouse Effect: Shell Anticipates A Sea Change*, THE N.Y. TIMES (1989).
[21] Damian Carrington and Jelmer Mommers, *'Shell knew': oil giant's 1991 film warned of climate change danger*, THE GUARDIAN (Feb. 28, 2017).
[22] *Shell Earlier Scenarios* (2017).
[23] Peter Knight, *The Shell Report: Profits and Principles – does there have to be a choice?* (1998).
[24] *Id.* According to Shell, "[t]he main disagreement centered on the Kyoto protocol which aims to cut overall greenhouse gas emissions by 5% by the year 2012. The GCC is actively campaigning

reiterate its support for international agreements, such as the Kyoto Protocol[25] and the Paris Climate Agreement.[26]

In August 2005, Shell's Mars Platform suffered damages during Hurricane Katrina, not coming back online until May 2006.[27] The storm forced Shell to begin "preparing for hurricanes in the Gulf of Mexico."[28] In the company's 2016 Sustainability Report, Shell stated that "[t]he effects of climate change mean that government, business and local communities are adapting their infrastructure to the changing environment. At Shell, we are taking steps at our facilities around the world to ensure that they are resilient to climate change. This reduces the vulnerability of our facilities and infrastructure to potential extreme variability in weather conditions."[29]

The Providence Terminal stores toxic pollutants known to be harmful to humans and aquatic life in an area affected by sea level rise, increased precipitation, increased magnitude and frequency of storm events, and increased magnitude and frequency of storm surges—all of which will become, and are becoming, worse as a result of climate change. Several storage tanks at the Providence Terminal directly abut the Providence River. The first significant storm surge that makes landfall at the Providence Terminal at or near high tide is going to flush hazardous and solid waste from the Providence Terminal into the Providence River and through nearby communities and ecosystems; a significant rise in sea level will put the majority of the Providence Terminal, including soils, groundwater, and treatment works, under water. Public records associated with the Providence Terminal admit that the facility's stormwater drainage system cannot effectively treat large precipitation events, even as these events are increasing in frequency and duration.[30] Shell knows all this, and yet has failed to disclose required information in its possession and has not taken appropriate steps to protect the public and the environment from this certain risk.

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against legally binding targets and timetables as well as ratification by the US government. The Shell view is that prudent precautionary measures are called for." *Id*.

[25] Chris Noon, *Shell CEO Targets Washington Over Kyoto*, FORBES (Dec. 5, 2006).

[26] Samantha Raphelson, *Energy Companies Urge Trump to Remain in Paris Climate Agreement*, NPR (May 18, 2017).

[27] Shell, *The Shell Sustainability Report: Meeting the Energy Challenge* (2006).

[28] *Id.*

[29] Royal Dutch Shell plc., *Sustainability Report* (2016).

[30] *See, e.g.*, State of Rhode Island and Providence Plantations Department of Environmental Management, *Emergency Response Report*, by Investigator John Leo (April 5, 2010) ("I checked the area around the facility and discovered a heavy sheen coming out of several storm drains along the shore. This was due to the heavy rains over the last few days the spill was coming out of the drains so fast that booms will not work and the conditions are not conducive to using absorbent pads and booms on the sheen."). This Emergency Response Report references heavy rains that had occurred a full week earlier on March 29 and 30. *See Weather History for KPVD April 2010*, https://www.wunderground.com/history/airport/KPVD/2010/4/1/WeeklyHistory.html?req_city=&req_state=&req_statename=&reqdb.zip=&reqdb.magic=&reqdb.wmo. As recognized by the Rhode Island Department of Environmental Management in issuing the current National Pollutant Discharge Elimination System permit, "[t]he circumstances at the facility have not substantially changed since the issuance of the last RIPDES permit . . . ." Statement of Basis IV, at 7 (July 26, 2010).

III. Resource Conservation and Recovery Act Violations

Shell is a generator of hazardous waste at the Providence Terminal, and CLF hereby alleges that Shell has contributed to the past or present handling, storage, treatment, transportation, or disposal of hazardous waste, as that term is defined in Section 1004(5) of RCRA, 42 U.S.C. § 6903(5), and solid waste, as that term is defined in Section 1004(27) of RCRA, 42 U.S.C. § 6903(27), at the Providence Terminal, which may present an imminent and substantial endangerment to health or the environment. Based on the information currently available to CLF, the toxic and hazardous wastes and pollutants listed below, many of which are highly carcinogenic, are present at the Providence Terminal:[31]

Acenaphthene	Chrysene	Napthalene
Acenaphthylene	Dibenzo[a,h]anthracene	NAPL
Anthracene	Ethanol	SGT-HEM (Oil and Grease)
Benz[a]anthracene	Ethylbenzene	Penanthrene
Benz[a]pyrene	Fluoranthene	Petroleum Hydrocarbons
Benzene	Fluorene	Pyrene
Benzo[b]fluoranthene	Ideno(1,2,3-cd)pyrene	Total Suspended Solids
Benzo[ghi]perylene	Iron	Xylenes [m,p,o]
Benzo[k]fluoranthene	Methyl Tertiary-Butyl Ether (MTBE)	

CLF intends to include these wastes in its proof of Shell's RCRA violations. To the extent that other hazardous and solid wastes are revealed to be present at the Providence Terminal—a fact that Shell is in a better position to know than CLF—Shell is put on notice that CLF also intends to include those other wastes in its proof of Shell's RCRA violations. The soils and groundwater at the Providence Terminal are contaminated from Shell's past, present, and ongoing handling, storage, treatment, transportation, or disposal of hazardous and solid waste.

[31] Rhode Island Department of Environmental Management, *Rhode Island Pollutant Discharge Elimination System Permit No. RI0001481* (Feb. 14, 2011); Handex of New England, Inc, *Updated Site Characterization Report and Remedial Action Plan: Motiva Facility Terminal, 520 Allens Avenue Providence, Rhode Island* (July 1999); Sovereign Consulting Inc., *Remedial Action Plan Addendum and Long-Term Groundwater Monitoring Plan: Motiva Bulk Storage Facility No. 58097, 520 Allens Avenue Providence, Rhode Island* (Sept. 2009).

A 1999 Site Characterization Report and Remedial Action Plan documents that the Providence Terminal site is contaminated with various pollutants.[32] The report identified five Areas of Concern ("AOCs") that are contaminated with levels of Non-aqueous phase liquid ("NAPL"), Petroleum Hydrocarbons, and Volatile Petroleum Hydrocarbon Constituents. Two of the AOCs border the Providence River. A 2009 Addendum to the Remedial Action Plan establishing a Long-term Groundwater Monitoring Plan for four of these AOCs reported that "[g]roundwaters within this classification may not be suitable for direct human consumption due to waste discharges, spills or leaks of chemical or land use impacts."[33]

The hazardous and solid waste at the Providence Terminal is generated, handled, stored, treated, transported and/or disposed of at or near sea level in close proximity to major human population centers, the Providence Harbor, and the Providence River, which flows through the communities of East Providence, Cranston, Warwick, and Barrington on its way to Narragansett Bay.[34] In the face of rising sea levels and increasing major storm events, the Providence Terminal poses an imminent and substantial risk to surrounding communities and the environment.

Shell has not disclosed its creation of this imminent and substantial risk to the United States Environmental Protection Agency ("EPA"), state regulators, or the public as it relates to the Providence Terminal. Shell failed to disclose required information in its possession to the federal and state regulators and the public regarding the effects of climate change on the Providence Terminal. Shell's failure to disclose has contributed to the imminent and substantial endangerment to health and the environment.

Shell's violations of RCRA are ongoing and continuous. CLF intends to seek a civil injunction, as provided under Section 7002 of RCRA, 42 U.S.C. § 6972, ordering Shell to make necessary disclosures and abate the imminent and substantial endangerment, and restraining Shell from further violating RCRA. CLF also intends to seek civil penalties and an award of litigation costs, including attorney and expert witness fees, under Section 7002 of RCRA, 42 U.S.C. § 6972.

IV. Clean Water Act

Shell operates the Providence Terminal pursuant to an individual National Pollutant Discharge Elimination System ("NPDES") permit issued by the Rhode Island Department of Environmental Management ("RIDEM") under the Rhode Island Pollutant Discharge Elimination

[32] Handex of New England, Inc, *Updated Site Characterization Report and Remedial Action Plan: Motiva Facility Terminal, 520 Allens Avenue Providence, Rhode Island* (July 1999).

[33] Sovereign Consulting Inc., *Remedial Action Plan Addendum and Long-Term Groundwater Monitoring Plan: Motiva Bulk Storage Facility No. 58097, 520 Allens Avenue Providence, Rhode Island* (Sept. 2009), at 1.

[34] Narragansett Bay is New England's largest estuary, serving as a critical habitat for thousands of species. The bay contributes $100 million to the local recreational fishing economy, in addition to other related tourism industries such as swimming and boating. *See* U.S. Environmental Protection Agency Office of Research and Development and New England Regional Office, *Striving for Balance in the Narragansett Bay Watershed: EPA's Triple Value Simulation (3VS) Model* (Jan. 2013).

System ("RIPDES") permit program, R.I. Gen. Laws Chapters 46-12, 42-17.1, and 42-35.[35] Shell operates subject to RIPDES Permit No. RI0001481 (the "Permit"), which was issued on February 14, 2011, and became effective on April 1, 2011. The Permit expired on April 1, 2016 and has been administratively continued.

Among other requirements, the Permit states that:

> A Storm Water Pollution Prevention Plan (SWPPP) shall be maintained and implemented by the permittee. The SWPPP shall be prepared in accordance with good engineering practices and identify potential sources of pollutants, which may reasonably be expected to affect the quality of storm water discharges associated with industrial activity from the facility. In addition, the SWPPP shall describe and ensure the implementation of Best Management Practices (BMPs) which are to be used to reduce or eliminate the pollutants in storm water discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit.

Permit Part I.C.1, at 12. Shell's application for RIPDES permit coverage failed to include information documenting sea level rise, increased precipitation, increased magnitude and frequency of storm events, and increased magnitude and frequency of storm surges—all of which will become, and are becoming, worse as a result of climate change—that would impact the Providence Terminal and surrounding communities. By failing to address sea level rise, increased precipitation, increased magnitude and frequency of storm events, and increased magnitude and frequency of storm surges—all of which will become, and are becoming, worse as a result of climate change—Shell is not maintaining and implementing a SWPPP and BMPs that will reduce or eliminate the pollutants in the Providence Terminal's storm water discharges and assure compliance with the Permit, which is a violation of the Permit in itself.

As discussed below, Shell is also routinely violating other terms and conditions of its Permit. The Permit establishes effluent limitations and monitoring and reporting requirements for Outfalls 001A, 002A, 003A, and 100A. Shell routinely fails to comply with the monitoring and reporting requirements in the Permit, depriving the public and regulators of accurate information regarding the nature of the discharges from the Providence Terminal. Shell also routinely violates applicable water quality standards, as well as the prohibition in both the Permit and the water quality standards on creating a visible oil sheen.

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[35] The receiving water identified in Shell's RIPDES Permit for the Providence Terminal is the Providence River, a tidal river that flows into Narragansett Bay. The upper half of the Providence River, where the Providence Terminal is located, is a Class SB1{a} waterbody, RIDEM Office of Water Resources, *State of Rhode Island 2014 303(d) List, List of Impaired Waters, Final* (May 2015), "designated for primary and secondary contact recreational activities and fish and wildlife habitat. They shall be suitable for aquacultural uses, navigation, and industrial cooling. These waters shall have good aesthetic value." RIDEM Office of Water Resources, *Water Quality Regulations* (amended Dec. 2010).

A. Clean Water Act Violations

1. *Unlawful Certification*

Shell's Permit requires that: "The SWPPP shall be signed by the permittee in accordance with RIPDES Rule 12…." Permit Part I.C.2, at 12. Rule 12 of the RIPDES Regulations requires that all permit applications for a corporation must be signed by a responsible corporate officer. R.I. Gen. Laws Chapters 46-12, 42-17.1, and 42-35, required Shell to submit the following certification to comply with Rule 12:

> I certify under penalty of law that this document and all attachments were prepared under the direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Rule 12 is consistent with the federal regulations for NPDES permits found at 40 C.F.R. § 122.22. 40 C.F.R. § 122.22(a)(1) requires that a permit application submitted by a corporation be signed by a responsible corporate officer:

> authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to *assure long term environmental compliance* with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather *complete and accurate* information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

Id. (emphasis added).

Shell submitted these certifications in its RIPDES permit application(s) and SWPPP(s). Shell signed these certifications without (a) disclosing information in its possession and relied on by the company in its business decision-making regarding factors such as sea level rise, increased precipitation, increased magnitude and frequency of storm events, and increased magnitude and frequency of storm surge—all of which will become, and are becoming, worse as a result of climate change; and (b) developing and implementing a SWPPP based on information in its possession and relied on by the company in its business decision-making regarding factors such as sea level

rise, increased precipitation, increased magnitude and frequency of storm events, and increased magnitude and frequency of storm surge—all of which will become, and are becoming, worse as a result of climate change. Shell also signed these certifications without addressing spill prevention and control procedures based on information in its possession and relied on by the company in its business decision-making, regarding factors such as sea level rise, increased precipitation, increased magnitude and frequency of storm events, and increased magnitude and frequency of storm surge—all of which will become, and are becoming, worse as a result of climate change. By failing to disclose this information and develop and implement a SWPPP based on it, Shell improperly certified that its submittals were true, accurate, and complete.

2. *Failure to Prepare SWPPP in Accordance with Good Engineering Practices*

Shell's Permit requires that: "The SWPPP shall be prepared in accordance with good engineering practices." Permit Part I.C.1, at 12. Shell's SWPPP for the Providence Terminal was not prepared in accordance with good engineering practices because the SWPPP was not based on information available to Shell and consistent with the duty of care applicable to engineers, as well as information known to reasonably prudent engineers and known to Shell, such as information about sea level rise, increased precipitation, increased magnitude and frequency of storm events, and increased magnitude and frequency of storm surge—all of which will become, and are becoming, worse as a result of climate change.

3. *Failure to Identify Sources of Pollution Reasonably Expected to Affect the Quality of Stormwater Discharges*

The Permit requires that: "The SWPPP shall . . . identify potential sources of pollutants, which may reasonably be expected to affect the quality of storm water discharges associated with industrial activity from the facility." Permit Part I.C.1, at 12. Shell has failed to identify sources of pollutants resulting from sea level rise, increased precipitation, increased magnitude and frequency of storm events, and increased magnitude and frequency of storm surge—all of which will become, and are becoming, worse as a result of climate change—which are reasonably expected and anticipated by Shell to affect the quality of the stormwater discharges from the Providence Terminal.

4. *Failure to Describe and Implement Practices to Reduce Pollutants and Assure Permit Compliance*

The Permit requires that:

> The SWPPP shall describe and ensure implementation of Best Management Practices (BMPs) which are to be used to reduce or eliminate the pollutants in storm water discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit.

Permit Part I.C.1, at 12. Shell's SWPPP for the Providence Terminal does not describe or ensure implementation of BMPs that will be used to address pollutant discharges resulting from sea level

rise, increased precipitation, increased magnitude and frequency of storm events, and increased magnitude and frequency of storm surge—all of which will become, and are becoming, worse as a result of climate change—which are reasonably expected, and known to Shell.

5. *Failure to Identify Sources, Spill Areas, Drainage*

The Permit requires that:

> The SWPPP must provide a description of potential sources which may be reasonably expected to add significant amounts of pollutants to storm water discharges or which may result in the discharge of pollutants during dry weather from separate storm sewers draining the facility. It must identify all activities and significant materials, which may potentially be significant pollutant sources.

Permit Part I.C.5.a, at 12. The SWPPP does not address sources of pollutants resulting from sea level rise, increased precipitation, increased magnitude and frequency of storms events, and increased magnitude and frequency of storm surge—all of which will become, and are becoming, worse as a result of climate change, and fails to identify where spills could occur due to and drainage paths associated with sea level rise, increased precipitation, increased magnitude and frequency of storms events, and increased magnitude and frequency of storm surge—all of which will become, and are becoming, worse as a result of climate change, and are known to Shell.

6. *Failure to Address Adequacy of Containment of Leaks and Spills in Storage Areas*

The Permit requires that:

> The SWPPP in Part I.C. shall specifically address the adequacy of containment of leaks and spills in storage areas (from Drums, Additive Tanks, Petroleum Product Tanks, etc.) and truck loading area(s). Adequate containment must exist at these locations so as to prevent untreated discharges from reaching any surface water.

Permit Part I.B.5, at 11. Shell's SWPPP contains a section entitled "Spill Prevention and Response Procedures," but this section of the SWPPP only discusses response procedures; it does not address spill prevention generally, nor does it address specifically the adequacy of containment in storage areas so as to prevent untreated discharges from reaching surface waters. SWPPP at 4-3. Further, to the extent the SWPPP does address the adequacy of containment in storage areas (if at all), it does not address whether containment systems are adequate to prevent untreated discharges resulting from sea level rise, increased precipitation, increased magnitude and frequency of storm events, and increased magnitude and frequency of storm surge—all of which will become, and are becoming, worse as a result of climate change.

7. *Failure to Amend or Update the SWPPP*

The Permit requires that:

> The permittee shall immediately amend the SWPPP whenever there is a change in design, construction, operation, or maintenance, which has a significant effect of the potential for the discharge of pollutants to the waters of the State; a release of reportable quantities of hazardous substances and oil; or if the SWPPP proves to be ineffective in achieving the general objectives of controlling pollutants in storm water discharges associated with industrial activity. Changes must be noted and then submitted to DEM. Amendments to the SWPPP may be reviewed by DEM in the same manner as Part I.C.3. of this permit.

Permit Part I.C.4, at 12. Shell has not amended its SWPPP based on information regarding sea level rise, increased precipitation, increased magnitude and frequency of storm events, and increased magnitude and frequency of storm surge—all of which will become, and are becoming, worse as a result of climate change—which are reasonably expected, and known to Shell.

8. *Failure to Properly Operate and Maintain Facilities and Systems of Treatment and Control*

The Permit requires that the permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of the Permit. Permit Part II.e, at 3. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of the Permit. *See* 40 C.F.R. § 122.41(e). The Permit's SWPPP requirements also include preventative maintenance protocols involving "inspection and maintenance of storm water management devices (i.e., oil/water separators, catch basins) as well as inspecting and testing plant equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters." Permit Part I.C.5.b.3, at 14.

Shell is not properly operating and maintaining the Providence Terminal to achieve compliance with the conditions of the Permit and has failed to consider and act upon information regarding sea level rise, increased precipitation, increased magnitude and frequency of storm events, and increased magnitude and frequency of storm surge—all of which will become, and are becoming, worse as a result of climate change—which are reasonably expected, and known to Shell.

9. *Failure to Clean Oil/Water Separators and Storm Water Ponds*

The SWPPP states that "[t]he oil/water separators are is [sic] inspected quarterly for both sludge layer and oil layer and cleaned-out as appropriate" and that "[t]he storm water collection

ponds are also inspected quarterly for excessive sediment build-up or evidence of erosion, and corrective action taken as needed." SWPPP, at 4-4. The images attached at Appendix A demonstrate that the separator and ponds are routinely excessively dirty, and show no signs of regular cleaning or maintenance. Failure to clean out the separators and ponds and/or take corrective action is a violation of Shell's enforceable duty to maintain and implement the SWPPP. *See* Permit Part I.C.1, at 12; SWPPP, at i.

10. *Failure to Submit Required Facts or Information to Rhode Island Department of Environmental Management*

The Permit requires that "[w]here the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, they shall promptly submit such facts or information." Permit Part II.1.7, at 6.

By failing to submit information regarding sea level rise, increased precipitation, increased magnitude and frequency of storm events, and increased magnitude and frequency of storm surge—all of which will become, and are becoming, worse as a result of climate change—in its permit application and in reports to RIDEM, Shell has submitted incorrect information in a permit application or reports to the Director. By failing to submit information related to sea level rise, increased precipitation, increased magnitude and severity of storm events, and increased magnitude and frequency of storm surge—all of which will become, and are becoming, worse as a result of climate change—in its permit application and in reports to the RIDEM, Shell has failed to promptly submit such relevant facts or information.

11. *Violations of Duty to Mitigate*

The Permit requires that "The permittee shall take all reasonable steps to minimize or prevent any discharge which has a reasonable likelihood of adversely affecting human health or the environment." Permit Part II.d, at 2; *see also* 40 C.F.R. § 122.41(d). Shell has failed take all reasonable steps to minimize or prevent any discharge which has a reasonable likelihood of adversely affecting human health or the environment due to its failure to consider and act upon information regarding sea level rise, increased precipitation, increased magnitude and frequency of storm events, and increased magnitude and frequency of storm surge—all of which will become, and are becoming, worse as a result of climate change—which are reasonably expected, and known to Shell.

12. *Unpermitted Discharge*

The CWA prohibits the discharge of any pollutant into the navigable waters of the United States without a NPDES permit authorizing such discharge. *See* 33 U.S.C. §§ 1311(a), 1342.

While Shell does have a RIPDES permit authorizing discharge of treated stormwater from three separate outfalls, there is additional runoff from the Providence Terminal that is not authorized by the Permit. During rain events, runoff flows down an embankment located on the

Providence Terminal property directly into the Providence River. Furthermore, the Providence Terminal discharges stormwater containing pollutants directly into the City of Providence storm drainage system from an area to the west of Allens Avenue. These discharges are not authorized by the Permit, and thus are unpermitted. Each and every day that this unpermitted discharge occurs is a separate and distinct violation of the CWA.

13. *Failure to Comply with Monitoring & Reporting Requirements*

The failure to conduct required monitoring for pollutant discharges and to comply with reporting requirements as required by a RIPDES are violations of the CWA. *See* 33 U.S.C. § 1311(a). Shell's monitoring and reporting has fallen well short of what the Permit requires and therefore violates the CWA. In fact, the reporting for the Providence Terminal is so grossly inadequate that the monitoring reports submitted by Shell provide little to no useful information regarding the quality or characteristics of discharges from the facility.

a. Failure to Use and Comply with Required Detection Limits

For Outfalls 001A and 002A, the Providence Terminal Permit contains "monitor and report" requirements for numerous pollutant parameters. *See* Permit Part I.A, at 2-4. The Permit further requires Shell to "assure that all wastewater testing required by this permit, is performed in conformance with the method detection limits listed below." Permit Part I.D, at 17. The relevant method detection limits ("MDLs") specified in the permit are:

Benzene	1.0 ug/l
Toluene	1.0 ug/l
Ethylbenzene	1.0 ug/l
Total xylenes	0.5 ug/l
Acenaphthene	1.0 ug/l
Acenaphthylene	1.0 ug/l
Anthracene	1.0 ug/l
Benzo(a)anthracene	0.013 ug/l
Benzo(a)pyrene	0.023 ug/l
Benzo(b)fluoranthene	0.018 ug/l
Benzo(ghi)perylene	2.0 ug/l
Benzo(k)fluoranthene	0.017 ug/l
Chrysene	0.15 ug/l
Dibenzo(a,h)anthracene	0.03 ug/l
Fluoranthene	1.0 ug/l
Fluorene	1.0 ug/l
Indeno(1,2,3-cd)pyrene	0.043 ug/l
Naphthalene	1.0 ug/l
Phenanthrene	1.0 ug/l
Pyrene	1.0 ug/l

Permit Part I.D, at 18. The permit also states that "all sample results shall be reported as: an actual value, 'could not be analyzed,' less than the reagent water MDL, or less than an effluent or sludge specific MDL." Permit Part I.D, at 17.

The 2017 RIPDES Discharge Monitoring Report ("DMR") Instructions state that "[t]he detection limit of the analytical method used to monitor a given pollutant must be equal to, or less than, the minimum detection limit (MDL) specified in the facility's RIPDES permit."[36] RIPDES DMR Instructions at 3. The instructions further state:

> When calculating sample averages for reporting on DMRs, results that are less than the applicable MDL shall be replaced with zeroes and the average calculated. The calculated value shall be reported on the DMR and a detailed explanation of how the average was calculated, including all individual sample results, shall be included in the DMR cover letter. In no cases shall non-numeric results be reported on DMRs (i.e., "below detection" or "BDL", "trace" or "TR", "non-detect", "ND", < #, etc.). If all sample results are below the applicable MDL or the daily maximum concentration was below the applicable MDL, the data shall be reported as zero and a detailed explanation of the sample results, including all individual sample results, shall be included in the DMR cover letter.

RIPDES DMR Instructions, at 3.

Shell has failed to comply with the instructions in its Permit and the RIPDES DMR Instructions. For example, as summarized in Appendix B, Shell has often reported on its DMRs that the concentration of pollutants in the samples analyzed was "<1." Reporting "<1" indicates that the MDL Shell is using for the pollutants is 1, and the amount of pollutant in the analyzed samples was below that stated detection limit. However, the MDL expressly required in the Permit for total xylenes, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene is *not* "1;" it is 0.5, 0.013, 0.023, 0.018, 0.017, 0.15, 0.03, and 0.043, respectively. For these pollutant parameters, reporting "<1" is a violation of the Permit and the Rhode Island RIPDES DMR Instructions. Further, by reporting these pollutants in orders of magnitude greater than the required monitoring level, Shell is preventing RIDEM and concerned citizens from reasonably ascertaining the level of toxicity of its discharge.

b. Failure to Comply with Sampling Requirements

With regard to sampling for "oil and grease" and "TSS," the Permit requires that:

> Two (2) samples shall be taken during wet weather and one (1) during dry weather. Wet weather samples must be collected during

[36] RIDEM variously defines MDL as "method detection limit" or "minimum detection limit." *See* Permit Part I.D, at 17 and RIPDES DMR Instructions at 3, respectively.

> the first 30 minutes from discharges resulting from a storm event that is greater than 0.1 inch of rainfall in a 24-hour period and at least 72 hours from the previously measurable (greater than 0,1 inch of rainfall in a 24-hour period) storm event. If this is not feasible, wet weather samples may be taken within the first hour of discharge and noted on the Discharge Monitoring Report.

Permit Part I.A.1 n. 1, at 4. The DMRs for the facility regularly indicate that samples were not taken in compliance with this enforceable Permit requirement. These violations are fully set forth in Appendix C, Table 1.

In addition, for numerous monitored pollutants, the Permit requires that:

> One sample shall be taken during the first 30 minutes of discharge from a storm event that is greater than 0.1 inch of rainfall in a 24-hour period and at least 72 hours from the previously measurable (greater than 0.1 inch of rainfall in a 24-hour period) storm event; if this is not feasible, it may be taken within the first hour of discharge and noted on the Discharge Monitoring Report.

Permit Part I.A.1 n. 2, at 4. The DMRs for the facility regularly indicate that samples were not taken in compliance with this enforceable Permit requirement. These violations are fully set forth in Appendix C, Table 2.

For all discharges, Shell is required to document specific storm characteristics on the DMRs. Specifically, the Permit requires that:

> In addition to the required sampling results submitted in accordance with Parts I.A.l. and l.A.3. of this permit, the permittee must provide the date and duration (hours) of the storm event sampled, the total depth of rainfall (inches), and the total volume of runoff (Ft^3). This information must be submitted with the Discharge Monitoring Report forms at the frequency specified in Part I.E.2 of this permit.

Permit Part I.A.4.d, at 8. The DMRs for the facility regularly indicate that samples were not taken in compliance with this enforceable Permit requirement. These violations are fully set forth in Appendix C, Table 3.

For all discharges, if adverse climatic conditions prevent samples from being collected in a given period, Shell is required to submit an explanation as to why, and may only exercise this waiver once in a two year period. Specifically, the permit requires that:

> If the permittee is unable to collect samples due to adverse climatic conditions which make the collections of samples dangerous or impractical, the permittee must submit, in lieu of sampling data, a description of why samples could not be collected, including

> available precipitation data for the monitoring period. The permittee can only exercise this waiver once in a two (2) year period for outfalls designated 001A, 002A, and 003A.

Permit Part I.4.e, at 8. The DMRs for the facility indicate that Shell is over-utilizing this waiver requirement, in violation of the Permit's prohibition on using the waiver more than once in a two-year period. These violations are fully set forth in Appendix C, Table 4.

Lastly, because all discharges through Outfall 001A and some discharges through Outfall 002A are pump controlled, Shell must take samples at those locations within the first 30 minutes of discharge associated with pumping and keep records of all pump operations to be in compliance with the Permit. The Permit includes a condition entitled "Recordkeeping and Internal Reporting Procedures" that states:

> Incidents such as spills, or other discharges, along with *other information describing the quality and quantity of storm water discharges* must be included in the records. All inspections and maintenance activities must be documented and maintained on site for at least five (5) years.

Permit Part I.C.5.b.11, at 16 (emphasis added). The DMRs do not indicate that monitoring is occurring during pumped discharges at all, let alone during the first 30 minutes after the pumps are activated.

Shell's failure to comply with the sampling requirements in its Permit distorts the sampling results it reports. To be effective, stormwater monitoring must be conducted when the runoff first begins, as this is when the highest concentration of pollutants washes off of the facility and into the Providence River. It is during this time that Shell must demonstrate compliance with the terms and conditions of its Permit that have been imposed to limit the amount of pollutants in Shell's discharge and protect the Providence River. When Shell fails to sample at the right time and under the right conditions, it fails to capture an accurate picture of the pollution discharging from its facility, in violation of its Permit and the CWA.

14. *Violations of State Water Quality Standards*

The Permit states that "[d]ischarges which cause a violation of water quality standards are prohibited." Permit Part II.o at 7. The state water quality standards for benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene are well below "1." *See* R.I. Code R. 25-16-25, Appendix B, Table 1 (RIDEM Ambient Water Quality Criteria and Guidelines). Based on information and belief, Shell is violating Rhode Island water quality standards, at a minimum, on the days in which Shell has reported "<1" for the parameters listed above.

15. *Violations of Prohibition of Visible Oil Sheen*

In addition to the violations of state water quality standards, there have been past and ongoing discharges associated with the Providence Terminal that result in a visible oil sheen at the Providence Terminal outfalls and in the Providence River. For example, a 2012 Emergency Response Report, filed with the RIDEM Division of Compliance and Inspection, stated that "oil has been coming out into the Providence River [from one of the outfalls]." These discharges violate the Permit, which states, "the discharge shall not cause visible oil sheen, foam, nor floating solids at any time" and "[t]he discharge shall not cause visible discoloration of receiving waters." Permit Part I.4.b. & I.4.c.

The State of Rhode Island designated the relevant portion of the Providence River as a Class SB1{a} waterbody.[37] Under Class SB1{a}, the state water quality standards prohibit any "sludge deposits, solid refuse, floating solids, oil, grease, scum."[38] The discharge of oil sheen into the Providence River is therefore also a violation of the state water quality standards.

16. *Failure to Properly Operate and Maintain Treatment System*

The Permit requires that "[t]he wastewater collection and treatment system shall be operated and maintained in order to provide optimal treatment of the wastewaters prior to discharge to the receiving water." Permit Part I.B.4, at 11. The current condition of the Providence Terminal wastewater collection and treatment system does not comply with this provision of the permit. For example, upon information and belief, the Providence Terminal outfall pipes, which discharge directly into the Providence River, are in disrepair. Failure to properly operate and maintain the treatment system is a violation of the express terms of the Permit.

B. Summary of Clean Water Act Violations

Each and every instance in which Shell has failed and continues to fail to comply with the requirements of the Clean Water Act and its Permit is a separate and distinct violation. Additional information, including information in Shell's possession, may reveal additional violations of the CWA. For example, this letter includes violations occurring after the date of the most recent publically available DMR data. In addition, this letter covers violations that continue or reoccur, or that can reasonably be expected to continue or reoccur, after the date of this letter. This letter covers Shell's failure to take corrective action to abate the monitoring and reporting violations, other Permit violations, and state water quality violations. CLF intends to sue for all violations, including those yet to be uncovered and those committed after the date of this notice letter. This notice letter covers all such violations to the full extent permitted by law.

The violations alleged herein are ongoing and continuous, or capable of repetition, and barring a change at the Providence Terminal and full compliance with the permitting requirements of the CWA, these violations are likely to continue indefinitely. Shell is liable for the above-

[37] RIDEM Office of Water Resources, *State of Rhode Island 2014 303(d) List, List of Impaired Waters, Final* (May 2015).
[38] RIDEM Office of Water Resources, *Water Quality Regulations* (amended Dec. 2010).

described violations occurring prior to the date of this letter, and for every day that these violations continue. Pursuant to Section 309(d) of the CWA, 33 U.S.C. § 1319(d), and the Adjustment of Civil Monetary Penalties for Inflation, 40 C.F.R. §§ 19.2, 19.4, each separate violation of the Act subjects Shell to a penalty up to $37,500 per day for each violation that occurred between January 12, 2009 and November 2, 2015; and up to $51,570 per day for each violation that occurred after November 2, 2015. CLF will seek the full penalties allowed by law.

In addition to civil penalties, CLF will seek declaratory relief and injunctive relief to prevent further violations of the CWA pursuant to Sections 505(a) and (d), 33 U.S.C. § 1365(a) and (d), and such other relief as permitted by law. CLF will seek an order from the Court requiring Shell to correct all identified violations through direct implementation of control measures and demonstration of full regulatory compliance.

Lastly, pursuant to Section 505(d) of the Clean Water Act, 33 U.S.C. § 1365(d), CLF will seek recovery of costs and fees associated with this matter.

V. OTHER CLAIMS

The violations of federal law alleged herein also support pendant state law claims sounding in tort, including, but not necessarily limited to, negligence and public and private nuisance. Shell is specifically put on notice that CLF intends to pursue such claims to the fullest extent permitted by law.

VI. CONCLUSION

During the notice period, CLF is willing to discuss effective remedies for the violations noticed in this letter that may avoid the necessity of litigation. If Shell wishes to pursue such discussions, please contact CLF within the next 20 days so that negotiations may be completed before the end of the notice period. We do not intend to delay the filing of a complaint in federal court if discussions are continuing at the conclusion of the notice period.

Sincerely,

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