



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS TX 75202-2733

June 12, 2013

CERTIFIED MAIL – RETURN RECEIPT REQUESTED: 7007 0710 0002 1385 2351

Ms. Crystal G. King
Site Leader
UCC Seadrift Operations
P. O. Box 186
Port Lavaca, TX 77979

RE: In the Matter of Union Carbide Corporation, a Wholly Owned
Subsidiary of The Dow Chemical Company, Seadrift Operations
Seadrift, Calhoun County, State of Texas, EPA Docket No. CAA 06-2013-3334

Dear Ms. King,

Please find enclosed fully executed Complaint and Consent Agreement and Final Order ("CAFO") which was filed with the EPA Region 6 Regional Judicial Officer on June 12, 2013.

UCC will have thirty (30) days from the effective date of the CAFO to pay the civil penalty of Ninety-Two Thousand Five Hundred Dollars (\$92,500). UCC must also comply with the Additional Terms of Settlement under the timetable described in the document.

Should you have any questions, please feel free to contact me at (214) 665-9798 or Gallegos.Jacob@epa.gov. Thank you for your assistance with this matter.

Sincerely,

Jacob A. Gallegos
Assistant Regional Counsel
US EPA, Region 6

Enclosure

Ec: Paul Bork
Operations Legal
Dow Chemical Company

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 6
DALLAS, TEXAS

FILED
2013 JUN 12 PM 3:56
REGIONAL HEARING CLERK
EPA REGION VI

IN THE MATTER OF:	(	DOCKET NO. CAA 06-2013-3334
	(	
Union Carbide Corporation	(	
A Wholly Owned Subsidiary of The Dow	(	
Chemical Company	(	COMPLAINT,
Seadrift Operations	(	
	(	CONSENT AGREEMENT AND
	(	
Seadrift, Calhoun County, State of Texas	(	FINAL ORDER
	(	
RESPONDENT	(	

COMPLAINT AND
CONSENT AGREEMENT AND FINAL ORDER

The Director, Compliance Assurance and Enforcement Division, United States Environmental Protection Agency, Region 6 ("Complainant" or "EPA"), and Union Carbide Corporation Seadrift Operations, a wholly owned subsidiary of The Dow Chemical Company, located in Seadrift, Texas ("Respondent" or "Seadrift"), in the above referenced action, have agreed to resolve this matter through issuance of this Complaint and Consent Agreement and Final Order ("Complaint" or "CAFO").

I. PRELIMINARY STATEMENT

1. This proceeding is for the assessment of civil penalties pursuant to Section 113(d) of the Clean Air Act, as amended ("CAA" or "The Act" herein), 42 U.S.C. § 7413(d), the issuance of a Compliance Order pursuant to Section 113(a)(3) of the CAA, 42 U.S.C. § 7413(a)(3)(B), and for additional terms of settlement as agreed to by Respondent. This proceeding was instituted by the issuance of a Complaint and Notice of Opportunity for Hearing incorporated

herein, and is simultaneously concluded by the issuance of this CAFO against Respondent pursuant to 40 C.F.R. §§ 22.13(b), 22.18(b)(2), and 22.34.

2. The Complaint alleges that Respondent violated regulations promulgated under the CAA at its Seadrift Operations, a chemical manufacturing plant located in Seadrift, Texas.

3. For purposes of this proceeding, Respondent admits the jurisdictional allegations of this Complaint; however, Respondent neither admits nor denies the specific factual allegations contained in this Complaint.

4. By signature on this Complaint and CAFO, Respondent waives any right to contest the allegations in the CAFO and its right to appeal the Final Order set forth herein, and waives all defenses which have been raised or could have been raised to the claims set forth in the CAFO.

5. Compliance with all the terms and conditions of this CAFO shall only resolve Respondent's liability for Federal civil penalties for the violations alleged in the CAFO.

6. Respondent consents to the issuance of this CAFO hereinafter recited and consents to the assessment and payment of the stated civil penalty in the amount and by the method set out in this CAFO, and agrees to additional terms of settlement set forth in Paragraphs 46 through 54 of this CAFO.

7. Nothing in this CAFO shall be construed to prevent or limit EPA's civil and criminal authorities, or that of other Federal, State, or local agencies or departments to obtain penalties or injunctive relief under other Federal, State, or local laws or regulations.

8. Respondent shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, or claim-splitting for violations not alleged in this Complaint.

9. Respondent represents that the undersigned representative is fully authorized by the Party whom he or she represents to enter into the terms and conditions of this CAFO, to execute this CAFO, and to legally bind the Respondent to the terms and conditions of this CAFO.

10. Respondent agrees that the provisions of this CAFO shall be binding on its officers, directors, employees, agents, servants, authorized representatives, successors, and assigns, including, but not limited to, subsequent purchasers. Nothing in the previous sentence shall adversely affect any right of EPA under applicable law to assert successor or assignee liability against Respondent's successor or assignee, even if not owned in whole or in part, directly or indirectly, by Respondent.

II. STATUTORY AND REGULATORY BACKGROUND

11. Section 101(b)(1) of the CAA, 42 U.S.C. § 7401(b)(1), states that the statute is designed to protect and enhance the quality of the nation's air so as to promote the public health and welfare and the productive capacity of its population.

12. Section 112(b) of the CAA, 42 U.S.C. § 7412(b), lists hazardous air pollutants ("HAPs"); Section 112(c)(1) of the CAA, 42 U.S.C. § 7412(c)(1), requires EPA to publish and revise, if appropriate, a list of categories of stationary sources; and Section 112(d)(1) of the CAA, 42 U.S.C. § 7412(d)(1), requires EPA to promulgate regulations establishing emission standards for each category, known as National Emission Standards for Hazardous Air Pollutants

("NESHAP"), based on Maximum Achievable Control Technology ("MACT") to reduce emissions of HAPs.

III. FINDINGS OF FACT AND CONCLUSIONS OF LAW

13. Respondent is a wholly owned subsidiary of The Dow Chemical Company. Union Carbide Corporation, formed in New York, is registered to do business in the State of Texas.

14. Respondent is a "person" as that term is defined in Section 302(e) of the Act, 42 U.S.C. § 7602(e), and within the meaning of section 113(d) of the Act, 42 U.S.C. § 7413(d).

15. At all times relevant to this CAFO, Respondent owned and operated a chemical manufacturing facility (known as the Seadrift Operations) located at 7501 Highway 185 North, Seadrift, Texas ("Facility").

16. The Respondent is the owner and operator of the Facility within the meaning of the CAA, Section 112(a)(9), 42 U.S.C. § 7412(a)(9), and 40 C.F.R. § 63.2.

17. The Facility produces glycols, oxide derivatives, basic plastics, and others.

18. The Facility is a "stationary source" and a "major source" as that term is defined at Section 112(a) of the Act. 42 U.S.C. § 7412(a), and 40 C.F.R. § 63.2.

19. At all times relevant to this CAFO, the Facility had one CAA Title V Permit Number O2032, revised and issued on June 11, 2009.

20. This Title V permit states that the Facility is subject to 40 C.F.R. Part 63,

Subpart FFFF for NESHAP - Miscellaneous Organic Chemical Manufacturing (aka MON or MACT FFFF), and specifically, 40 C.F.R. § 63.2455(a) is applicable to VENT246 of its steam-assisted Poly Large Flare, a pollution control device.

21. 40 C.F.R. § 63.2455(a) states, "You must meet each emission limit in Table 1 to this subpart that applies to your continuous process vents".

22. Table 1, 40 C.F.R. § 63.2455(a), dictates, for each Group 1 continuous process vent, then you must reduce emissions of total organic HAP by venting emissions through a closed vent system to a flare.

23. 40 C.F.R. § 63.2450(e)(2) states, "... if you reduce organic HAP emissions by venting emissions through a closed-vent system to a flare, you must meet the requirements of §63.982(b) and the requirements referenced therein".

24. 40 C.F.R. § 63.982(b), for closed vent system and flare, states, "Owners or operators that vent emissions through a closed vent system to a flare shall meet the requirements in ... §63.987 for flares; ...".

25. 40 C.F.R. §63.987(a) states, "Flares subject to this subpart shall meet the performance requirements in 40 C.F.R. 63.11(b) (General Provisions)".

26. 40 C.F.R. § 63.11(b)(6)(ii) states, "Flares shall be used only with the net heating value of the gas being combusted at 11.2 MJ/scm (300 BTU/scf) or greater if the flare is steam-assisted or air-assisted".

27. 40 C.F.R. § 63.11(b)(1) states, "Owners or operators using flares to comply with the provisions of this part shall monitor these control devices to assure that they are operated and maintained in conformance with their designs".

28. Flares are typically designed to achieve greater than 98% combustion efficiency of organic materials. Gas heating value is important in ensuring the combustion efficiency of a flare. And an appropriate ratio of steam to vent gas should be maintained in order to ensure nearly complete combustion of volatile organic compounds (VOC), HAPs, and other pollutants. Over-steaming causes the gas mixture to be under heated, a considerable risk to the achievement of intended greater than 98% combustion efficiency and to the release of VOCs, HAPs, and other pollutants into the atmosphere. Scientific tested data show that a ratio of steam to vent gas at 4 or greater significantly decreases the combustion efficiency. Except when needed to avoid smoking, over steaming of a flare, therefore, is not good air pollution control practice and not in conformance with flare design requirements.

IV. VIOLATIONS

COUNT 1: Poly Large Flare Failed to Maintain Required Net Heating Value

29. The Respondent owns or operates a stationary source with pollution control devices including Poly Large Flare regulated under 40 C.F.R. Part 63, Subpart A (General Provisions).

30. The Poly Large Flare must comply with 40 C.F.R. § 63.11(b)(6)(ii).

31. 40 C.F.R. § 63.11(b)(6)(ii) requires that steam assisted flares maintain the net heating value of the gas being combusted at 11.2 MJ/scm (300 BTU/scf) or greater.

32. At the Facility, there were 34 days from June 15, 2012, to December 24, 2012, in which the Poly Large Flare did not maintain the net heating value of the gas being combusted at 11.2 MJ/scm (300 BTU/scf) or greater.

33. As a result, the Respondent failed to operate the Poly Large Flare with the required combusted gas net heating value and has, therefore, violated 40 C.F.R. § 63.11(b)(6)(ii).

COUNT 2: Poly Large Flare Failed to Operate in Accordance to Its Design

34. Petitioner realleges and hereby incorporates by reference Paragraphs 1-33 as referenced above.

35. 40 C.F.R. § 63.11(b)(1) requires Respondent to monitor its flares to assure they are operated and maintained in conformance with their design.

36. Respondent-provided design information for the Poly Large Flare to handle very high flow rates indicates a recommended maximum mass flow rate ratio of total steam to vent gas to be less than one (1).

37. At the Facility, the Poly Large Flare had mass flow rate ratio of steam to vent gas greater than seven (7) on June 17, 2012.

38. As a result, the Respondent failed to operate the Poly Large Flare to conform with its design and has therefore violated 40 C.F.R. § 63.11(b)(1).

V. CIVIL PENALTY AND ADDITIONAL TERMS OF SETTLEMENT

A. Civil Penalty

39. For the reasons set forth above, Respondent has agreed to pay a civil penalty which has been determined in accordance with Section 113(d) of the CAA, 42 U.S.C. § 7413(d), which

authorizes EPA to assess a civil penalty of up to twenty-five thousand dollars (\$25,000) per day for each violation of the CAA.¹

40. Upon consideration of the entire record herein, including the Findings of Fact and Conclusions of Law, which are hereby adopted and made a part hereof, and upon consideration of the size of the business, the economic impact of the Penalty on the business, the violator's full compliance history and good faith efforts to comply, the duration of the violation, payment by the violator of penalties previously assessed for the same violation, the economic benefit of noncompliance, the seriousness of the violation, and other factors as justice may require, INCLUDING Respondent's agreement to perform the additional terms of settlement set forth below, it is ORDERED that Respondent be assessed a civil penalty in the amount of Ninety-Two Thousand and Five Hundred Dollars (\$92,500.00).

41. Within thirty (30) days of the effective date of this Complaint and CAFO, Respondent shall pay the assessed civil penalty by cashier's check, certified check, or wire transfer made payable to "Treasurer, United States of America, EPA - Region 6". Payment shall be remitted in one of five (5) ways: regular U.S. Postal Service mail, to include certified mail; overnight mail; or wire transfer; Automated Clearinghouse for receiving US currency; or On Line Payment.

¹ The Civil Penalty Inflation Adjustment Act of 1990, 28 U.S.C. § 2461, as amended by 31 U.S.C. § 3701 provides for increases in the statutory penalty provisions (\$25,000) cited in the Clean Air Act Stationary Source Civil Penalty Policy dated October 25, 1991 (CAA Penalty Policy). It provides for up to \$25,000 per day of violation for violations occurring on or before January 30, 1997; up to \$27,500 per day for each such violation occurring after January 30, 1997 through March 15, 2004; up to \$32,500 per day for each such violation occurring after March 15, 2004 through January 12, 2009; and up to \$37,500 per day for each such violation occurring after January 12, 2009.

U.S. EPA v. Union Carbide Corporation
DOCKET NO. CAA 06-2013-3334

For regular U.S. Postal Service mail, U.S. Postal Service certified mail, or U.S. Postal Service express mail, the check(s) should be remitted to:

U.S. Environmental Protection Agency
Fines and Penalties
Cincinnati Finance Center
P.O. Box 979077
St. Louis, MO 63197-9000

For overnight mail (non-U.S. Postal Service, e.g. FedEx), the check(s) should be remitted to:

U.S. Bank
Government Lockbox 979077
U.S. EPA Fines & Penalties
1005 Convention Plaza
SL-MO-C2-GL
St. Louis, MO 63101

Contact: Natalie Pearson
314-418-4087

For wire transfer, the payment should be remitted to:

Federal Reserve Bank of New York
ABA: 021030004
Account Number: 68010727
SWIFT address: FRNYUS33
33 Liberty Street
New York, NY 10045

Field Tag 4200 of the Fedwire message should read:
"D 68010727 Environmental Protection Agency"

For Automated Clearinghouse (also known as REX or remittance express):

U.S. Treasury REX / Cashlink ACH Receiver
ABA: 051036706
Account Number: 310006, Environmental Protection Agency
CTX Format Transaction Code 22 – checking
Physical location of U.S. Treasury facility:
5700 Rivertech Court
Riverdale, MD 20737
Contact – Jesse White (301) 887-6548

For On Line Payment:

<https://www.pay.gov/paygov/>

Enter sfo 1.1 in search field

Open form and complete required fields.

PLEASE NOTE: The docket number CAA 06-2013-3334 shall be clearly typed on the check to ensure proper credit. The payment shall also be accompanied by a transmittal letter and shall reference Respondent's name and address, the case name, and docket number of the administrative complaint and CAFO. Respondent's adherence to this request will ensure proper credit is given when penalties are received for the Region. Respondent shall also send a simultaneous notice of such payment, including a copy of the money order, or check, and the transmittal letter below to the following:

Jim Yang (6EN-AT)
U.S. EPA, Region 6
1445 Ross Avenue Suite 1200
Dallas, Texas 75202-2733;

Region 6 Hearing Clerk (6RC-D)
U.S. EPA Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

42. Respondent agrees not to claim or attempt to claim a federal income tax deduction or credit covering all or any part of the civil penalty paid to the United States Treasurer.

43. Pursuant to 31 U.S.C. § 3717 and 40 C.F.R. § 13.11, unless otherwise prohibited by law, EPA will assess interest and late payment penalties on outstanding debts owed to the United States and a charge to cover the costs of processing and handling a delinquent claim. Interest on the civil penalty assessed in this CAFO will begin to accrue thirty (30) days after the effective date of the CAFO and will be recovered by EPA on any amount of the civil penalty that is not

paid by the respective due date. Interest will be assessed at the rate of the United States Treasury tax and loan rate in accordance with 40 C.F.R. § 13.11(a). Moreover, the costs of the Agency's administrative handling of overdue debts will be charged and assessed monthly throughout the period the debt is overdue. See 40 C.F.R. § 13.11(b).

44. EPA will also assess a fifteen dollar (\$15.00) administrative handling charge for administrative costs on unpaid penalties for the first thirty (30) day period after the payment is due and an additional fifteen dollars (\$15.00) for each subsequent thirty (30) day period that the penalty remains unpaid. In addition, a penalty charge of up to six (6) percent per year will be assessed monthly on any portion of the debt which remains delinquent more than ninety (90) days. See 40 C.F.R. § 13.11(c). Should a penalty charge on the debt be required, it shall accrue from the first day payment is delinquent. See 31 C.F.R. § 901.9(d). Other penalties for failure to make a payment may also apply.

45. Pursuant to Section 113(d)(5) of the Act, 42 U.S.C. § 7413(d)(5), any person who fails to pay on a timely basis, a civil penalty ordered or assessed under this section shall be required to pay, in addition to such penalty and interest, the United States enforcement expenses, including but not limited to, attorneys fees and costs incurred by the United States for collection proceedings, and a quarterly nonpayment penalty for each quarter during which such failure to pay persists. Such nonpayment penalty shall be ten (10) percent of the aggregate amount of such person's outstanding penalties and nonpayment penalties accrued as of the beginning of each quarter.

B. Additional Terms of Settlement

46. Unless otherwise noted, beginning on the date of entry of this CAFO, Respondent shall comply with the terms set forth in paragraphs 47 through 53 below.

47. Respondent shall calculate a mass flow rate ratio of steam to vent gas by measuring mass flows of total steam and total vent gas at the Poly Large Flare. The ratio is on a one-hour rolling average, rolled every five minutes.

48. Respondent shall operate Poly Large Flare at a ratio at three (3) or less of steam mass flow rate to vent gas mass flow rate, except to stop smoke emissions that are occurring, to prevent extinguishing the flare, or to protect personnel safety.

49. Respondent shall install a steam/vent gas controller at the Poly Large flare at the facility, which will be operational within ninety (90) days from entry of the CAFO.

50. Respondent shall feed the ratio calculated in Paragraph 47 to the steam/vent gas ratio controller that has a selected set point for proper adjustment of steam or vent gas.

51. Respondent shall operate the Poly Large Flare with a vent gas net heating value ("NHV") of greater than or equal to 300 BTU/scf as measured and calculated using the gas chromatograph currently in operation for the Poly Large Flare. The gas chromatograph must be capable of determining the VOC concentration in the vent gas stream at least once every fifteen (15) minutes. The average net heating value over a one-hour block period will be used to demonstrate compliance with the vent gas net heating value requirement.

52. The gas chromatograph, steam flow meter and waste gas flow meter shall be operated on a continuous basis except for the following periods:

- a. Malfunction of an instrument;
- b. Maintenance following instrument malfunction;
- c. Scheduled Maintenance of an instrument;
- d. Quality assurance/Quality control activities; and/or
- e. When the Poly Large Flare that the instrument or the monitoring system is associated with is not in service.

In no event, however, shall the excepted activities in Subparagraph 52.a-d for any instrument exceed one hundred ten (110) hours in any calendar quarter.

53. Respondent shall monitor, evaluate, and optimize the Poly Large flare operation conditions, including additions and/or changes of equipment, to satisfy requirements of smokeless, net heating value of vent gas, and ratio of steam/vent gas.

54. As part of the implementation of the Poly Large Flare emissions reduction, within ninety (90) days of entry of this CAFO, Respondent shall:

- a. Train personnel with responsibility or oversight for the operation of the Poly Large Flare on BTU and steam/vent gas ratio controls and track such training.
- b. Review the Poly Large Flare system Standard Operating Procedures (SOPs) and modify such SOPs as necessary. The SOPs at least should include environmental regulatory requirements of the flare; functions and operations of the flare, and its control instruments.

55. By no later than one (1) year after the effective date of this CAFO, and unless noted differently above, Respondent shall certify to EPA completion of the additional terms of

settlement in paragraphs 46-54 above. Respondent represents that the signing representative is fully authorized by Respondent to certify that the terms and conditions of this CAFO have been met. The certification should have the following statement:

"I certify under penalty of law that I have examined and am familiar with the information submitted in this document and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment".

56. The certification required by paragraph 55 above shall be sent to:

Jim Yang
Enforcement Officer (6EN-AT)
Toxics Enforcement Section
Compliance Assurance and Enforcement Division
U.S. EPA, Region 6
1445 Ross Avenue Suite 1200
Dallas, Texas 75202-2733;

57. Nothing in this agreement shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any other remedies or sanctions available by virtue of the Respondent's violation of this agreement or of the statutes and regulations upon which this agreement is based, or for the Respondent's violation of any applicable provision of law.

58. This CAFO shall not relieve the Respondent of its obligation to comply with all applicable provisions of federal, state or local law, nor shall it be construed to be a ruling on, or determination of, any issue related to any federal, state or local permit, nor shall it be construed

to constitute EPA approval of any equipment or technology installed by the Respondent in connection with any additional settlement terms undertaken pursuant to this CAFO. Nothing in this CAFO shall be construed to prohibit or prevent the federal, state, or local government from developing, implementing, and enforcing more stringent standards through rulemaking, the permit process, or as otherwise authorized or required.

59. This document is a "Final Order" as that term is defined in the CAA Penalty Policy for the purpose of demonstrating a history of "prior such violations".

VI. RETENTION OF ENFORCEMENT RIGHTS

60. EPA does not waive any rights or remedies available to EPA for any violations by the Respondent of Federal laws, regulations, statutes, or permitting programs.

61. Nothing in this CAFO shall relieve Respondent of the duty to comply with all applicable provisions of the CAA.

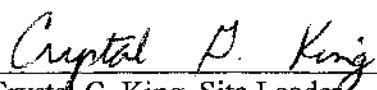
VII. COSTS

62. Each party shall bear its own costs and attorneys fees.

IT IS SO AGREED:

FOR THE RESPONDENT:

Date: 6/10/13


Crystal G. King, Site Leader
UCC Seadrift Operations

FOR THE COMPLAINANT:

Date: 6/12/13


John Blevins
Director
Compliance Assurance and
Enforcement Division

FINAL ORDER

Pursuant to Section 113(d) of the Clean Air Act (Act), 42 U.S.C. § 7413(d), and the Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties, 40 C.F.R. Part 22, the foregoing Consent Agreement is hereby ratified. This Final Order shall not in any case affect the right of EPA or the United States to pursue appropriate injunctive or other equitable relief or criminal sanctions for any violations of law. This Final Order shall resolve only those causes of action alleged in this CAFO. The successful completion of the additional terms of settlement set forth in Paragraphs 46 through 59 to this CAFO are conditions precedent to the resolution of the claims set forth in Paragraphs 29 through 38 of this CAFO. Nothing in this Final Order shall be construed to waive, extinguish, or otherwise affect Respondent's (or its officers, agents, servants, employees, successors, or assigns) obligation to comply with all applicable federal, state, and local statutes and regulations, including the regulations that were the subject of this action. The Respondent is ordered to comply with the terms of settlement, including the assessment of civil penalties, as set forth in the Consent Agreement. In accordance with 40 C.F.R. § 22.31(b), this Final Order shall become effective upon filing with the Regional Hearing Clerk.

Dated 6-12-13



Regional Judicial Officer
U.S. EPA, Region 6

CERTIFICATE OF SERVICE

I hereby certify that on the 12th day of June, 2013, the original and one copy of the foregoing Complaint and Consent Agreement and Final Order ("Complaint and CAFO") was hand delivered to the Regional Hearing Clerk, U.S. EPA - Region 6, 1445 Ross Avenue, Suite 1200, Dallas, Texas 75202-2733, and a true and correct copy was delivered to the following individual(s) by the method indicated below:

CERTIFIED MAIL - RETURN RECEIPT REQUESTED 7007 0710 0002 1385 2351

Crystal G. King
Site Leader
UCC Seadrift Operations
P. O. Box 186
Port Lavaca, TX 77979

CERTIFIED MAIL - RETURN RECEIPT REQUESTED 7007 0710 0002 1385 2368

C T Corporation System
Registered Agent for
Union Carbide Corporation Seadrift Operations
350 N. St Paul Street, Suite 2900
Dallas, TX 75201-4234

June 12, 2013
Date

Sandra Hardy
U.S. EPA Region 6
Dallas, Texas