Historical Enforcement and Compliance Data on the Electric Power Generation, Transmission and Distribution Industry

US Environmental Protection Agency
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To understand the experience of courts settlements and judgments, EPA looked at compliance and enforcement in the Electric Power Generation, Transmission and Distribution industry. EPA believes that compliance assistance, monitoring, and enforcement are important components of the regulatory framework. Through inspections, compliance monitoring can identify noncompliance at regulated facilities. Enforcement actions provide legal instruments to ensure correction of deficiencies to achieve compliance with environmental requirements. Compliance and enforcement actions have certain functions which EPA considers particularly pertinent to the risk determination for rulemaking under CERCLA § 108(b). First, through negotiated agreements, EPA can ensure that the responsible party carries out or pays for the cleanup if noncompliance causes release of a hazardous material. Second, enforcement actions can compel a responsible party to return to compliance through instruments such as settlements and orders. Third, the prospect of financial penalties that can accompany these enforcement instruments can encourage compliance.

EPA obtained data from the EPA Enforcement & Compliance History Online (ECHO) system and provide a review of federal enforcement from FY1973 through FY2017[1]. Only those facilities whose primary North American Industry Classification System (NAICS) codes indicate Electric Power Generation, Transmission and Distribution industry activities (NAICS 2211) were included in EPA's review. The data are accessed in the ECHO system through NAICS codes.

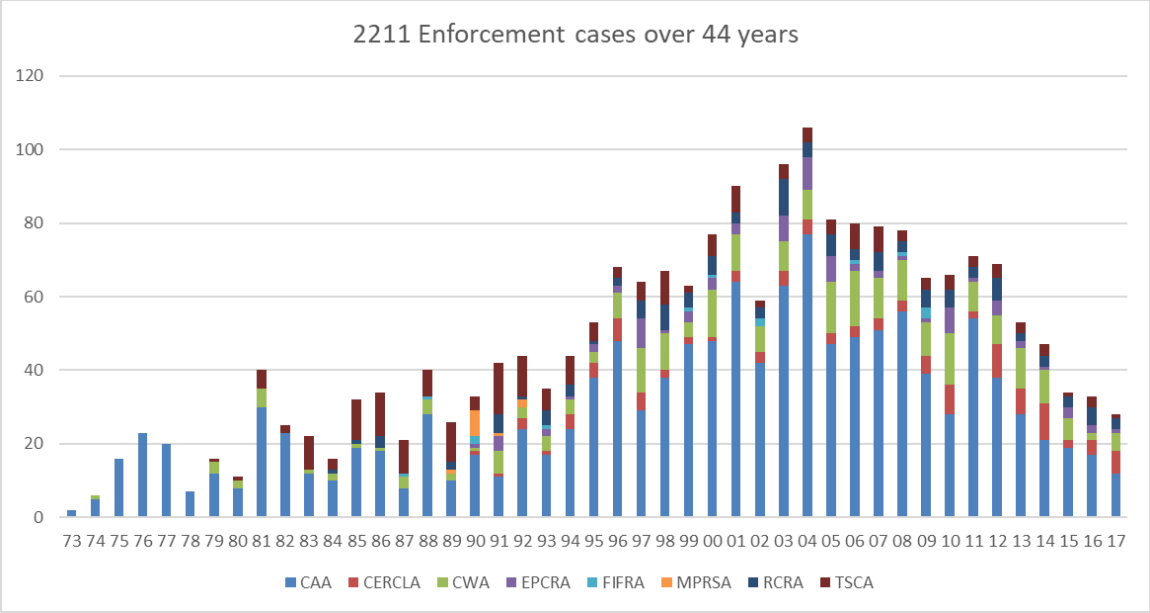

Figure 1

A. Enforcement of recent Electric Power Generation, Transmission and Distribution industry federal requirements – ECHO data shows that initiatives and normal review or inspection of facilities resulted in over 2000 federal enforcement cases in the Electric Power Generation,

[1] ECHO does not include all of EPA's compliance and enforcement activity because regions are not required to report "informal actions," and it does not consistently capture all state actions.

Transmission and Distribution industry from FY1974 and FY2017. Clean Air Act (CAA) (62%) and Clean Water Act (CWA) (12%) cases were the most common. There are a dramatically smaller number of cases in Resource Conversation and Recovery Act (RCRA) (6%), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (5%) and Emergency Planning and Community Right-to-know Act (EPCRA) (4%). As shown in Figure 1 above, the total number of federal enforcement cases per fiscal year exceeds 60 in 1996, peaks at over 100 in 2004, and declines to less than 30 in 2017. Further discussion of the enforcement details on these cases can be found in the detailed background document "Data for Enforcement, Court Settlements and Judgments in the Electric Power Generation, Transmission and Distribution Industry."

a. Historical analysis of Petroleum Refining Compliance History – In 1997, the EPA Office of Compliance Sector Notebook Project reviewed the Fossil Fuel Electric Power Generation Industry[2].
    i. Table 38 of this document provides an overview of the reported compliance and enforcement data for this subsector of the Power Generation industry over a period of five years (August 1990 to August 1995). A few points were found at that time:
        1. 66% of the facilities identified in the search were inspected during the five-year period. These facilities were inspected on average six times over the five-year period, with two enforcement actions.
        2. The ratio of enforcement actions to inspections varied between EPA regions with no correlation to the proportion of state lead versus federal lead actions.
    ii. Tables 39 and 40 allow the compliance history of the fossil fuel electric power generation sector to be compared to the other industries covered by the industry sector notebooks. Points highlighted here are:
        1. The number of inspections over the five-year period (14,210) is more than three times the amount conducted in most other industries.
        2. The enforcement to inspection rate of six percent is one of the lower rates for the comparison industries.

b. Review of Enforcement Response Actions – Enforcement cases can include instances where removal action, release reduction, or return to compliance include the removal of contaminated media by the responsible party. Measures to remove contamination may be required in enforcement orders under the range of environmental statutes and are negotiated to require activities aligned with return to compliance[3]. In this situation, taking an enforcement action directly reduces risks to human health and the environment. During the period FY2012 through FY2017, 14 settled Electric Power Generation, Transmission and Distribution Industry enforcement cases were

[2] EPA Office of Compliance Sector Notebook Project, Profile of the Fossil Fuel Electric Power Generation Industry, Sep 1997, EPA/310-R-97-007

[3] These ECHO enforcement response actions are separate from the Superfund removals analyzed elsewhere. ECHO system data includes the combined value of total enforcement financial penalties, Supplemental Environmental Projects (SEPs), and associated compliance activity

identified as those where removal of contaminated media occurred. They are primarily CERCLA (43%) and CWA (36%) cases, at both commercial and federal facilities. One CAA and two TSCA cases are also included. Six of the 14 cases were eventually tracked as Superfund Enterprise Management System (SEMS) sites, with the largest single CERCLA expenditure currently accounted at over $95M[4]. The ECHO system data includes the combined value of separate total enforcement financial penalties, Supplemental Environmental Projects (SEPs are environmentally beneficial projects that are not otherwise legally required, that have a close nexus to the violations and that a defendant/respondent voluntarily agrees to undertake as part of the settlement of an enforcement action), and associated compliance activity in flagged removal enforcement actions. To place enforcement removal orders in financial perspective, the sum of the 14 cases noted above were valued at over $125M.

These federal enforcement mandated removals mitigated risks to human health and the environment, removing soils, groundwater and sediments contaminated by a variety of substances. The substances removed are generally categorized as metals, hydrocarbons, and hazardous chemicals. In all, over 20K cubic yards of substances recovered included mineral oil, coal combustion residuals (CCR), polychlorinated biphenyls (PCB), diesel, light non-aqueous phase liquids, gasoline, volatile organic carbons (VOC), poly aromatic hydrocarbons, perchloroethylene, and lead. Contaminated soil removed was over 44K cubic yards, cleaning up trichloroethylene, PCB, arsenic, chromium, copper, lead, nickel, zinc, cyclonite (RDX), dichlorodiphenyldichloroethylene (DDE), thallium, dieldrin, heptachlor epoxide, benzopyrene, manganese, benzofluoranthene and explosive wastes. Contaminated waters removed and treated were over 46M cubic yards, reducing trichloroethylene, mineral and other oil, CCR, diesel, VOC, gasoline, carbon tetrachloride and explosive wastes. The over 270K cubic yards of removed contaminated sediments included CCR, PCB, mercury, and dioxin.

c. Total value of enforcement settlements and judgments – Settlements and judgments in enforcement cases can result in financial penalties, supplemental environmental projects (SEPs), and activities required to return to compliance[5]. Enforcement settlements and judgments can ensure that the responsible party conducts or pays for cleanup, drive a return to compliance, and incentivize protection of human health and the environment. The total enforcement costs as exact penalty, exact SEP and estimated compliance activity values are included in the case summaries. If all enforcement cases in the Electric Power Generation, Transmission and Distribution Industry are considered, the total penalties are over $415M, the total SEPs are over $129M and the total compliance activity estimates are over $34.2B.

[4] Unless otherwise noted, all financial figures in this report are expressed in inflation adjusted 2017 US dollars.
[5] Compliance actions ordered can include the removal of contaminated media, installation of new equipment, or implementation of compliant processes.

B. Review of Major CERCLA and RCRA cases – Particular consideration was given to CERCLA and RCRA regulations as relevant components of the modern regulatory framework that applies to the Electric Power Generation, Transmission and Distribution industry. CERCLA and RCRA regulations require the protection and restoration of facility land resources. The first CERCLA/RCRA case in this industry was concluded in 1984, showing enforcement applicability under the existing modern regulations. The top CERCLA and RCRA case values for the Electric Power Generation, Transmission and Distribution industry enforcement cases have total compliance values ranging from over $250K to $1.1B. As shown in Figure 2 below, there have been over 224 CERCLA and RCRA cases in this industry. The number of total CERCLA and RCRA enforcement cases per fiscal year averages over six annually, peaks at over 14 in 2012, and declines to less than 10 in 2017. Further information on the enforcement details on these CERCLA and RCRA cases can be found in the detailed background data "Data for Enforcement, Court Settlements and Judgments in the Electric Power Generation, Transmission and Distribution industry."

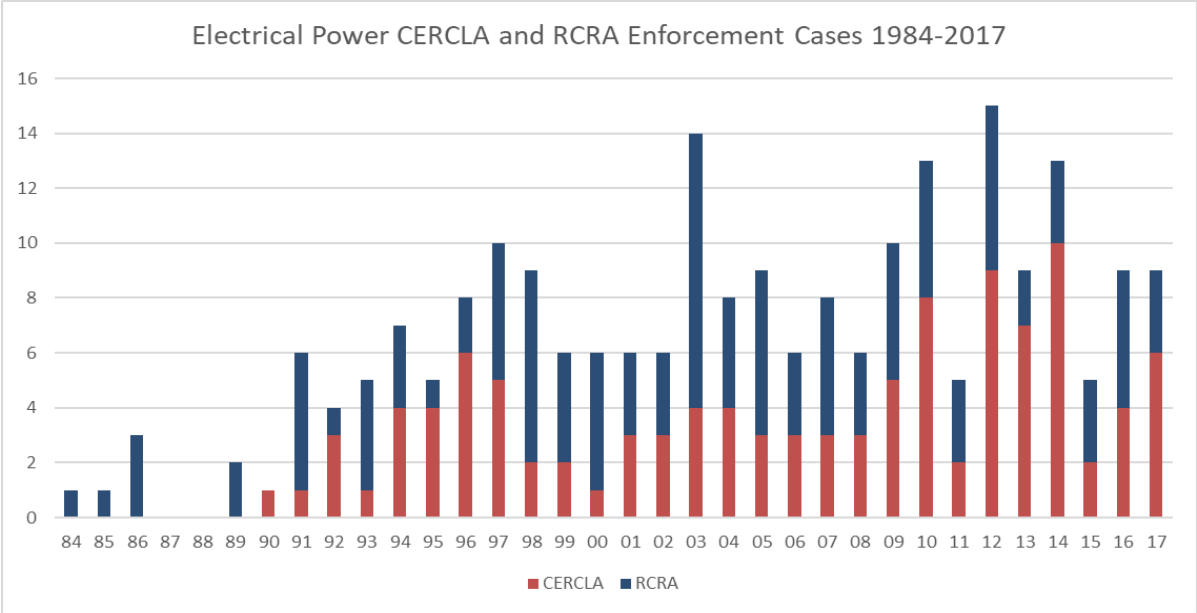

Figure 2

a. Tennessee Valley Authority Kingston (CERCLA, 2009, $1.1B) One of four orders from FY2000 through FY2010 at this TVA site is a CERCLA order associated with the Kingston coal ash release. On December 22, 2008, approximately 5.4M cubic yards of ash material were released. A containment dike surrounding part of a landfill storing ash from power plant operations failed. The initial release of material created a wave of water and ash that choked the adjacent Emory River, disrupted electrical power, ruptured a natural gas line, covered a railway and local roadways, and necessitated the evacuation of a nearby neighborhood. The material also covered about 300 acres of adjacent parts of Watts Bar Reservoir, including most of the Swan Pond Embayment and reservoir shorelands. The material contains naturally occurring metals – arsenic, chromium, copper, lead, mercury, nickel, selenium, thallium, vanadium and zinc – as well as naturally occurring radionuclides, which are hazardous substances. The order calls for the comprehensive cleanup of the site,

including both time-critical and non-time-critical removal actions. All actions were to be performed by the TVA with EPA oversight. TVA was also ordered to pay EPA's past and future response costs.

b. Duke Energy (CERCLA, 2014, $18M). Two of 19 enforcement orders from FY1997 through FY 2015 with Duke Energy are FY2014 CERCLA orders associated with the Eden coal ash release site. Executed at the same time by both EPA Regions 3 and 4, removal and assessment work occur in both North Carolina and Virginia. The agreement requires Duke Energy to perform a comprehensive assessment to determine the location of coal ash deposits and to remove deposits along the Dan River at an estimated cost of $1 million. Additionally, Duke Energy was required to pay EPA $2 million in past and future response costs associated with the spill[6]. The release of coal ash occurred at the Dan River Steam Station north of Eden, NC. The volume of ash released was estimated as between 30K tons and 39K tons. In addition, approximately 27M gallons of ash pond water waste was released. Crews removed accessible coals ash from the Dan river and began sampling drinking water, surface water and river sediments. To remove deposits along the Dan river in consultation with the US Fish and Wildlife Service, EPA performed oversight of the cleanup. Under the Order, Duke's work was subject to review and approval by EPA, in consultation with the North Carolina Department of Environment and Natural Resources and Virginia's Department of Environmental Quality. Once removal activities are complete, Duke is required to asses any remaining contamination to determine whether additional actions may be needed to protect human health and the environment.

c. Puerto Rico Electric Power Authority (PREPA) Palo Seco (CERCLA, 1997, 2009 & 2017, $5.8M) In three CERCLA cases over 20 years, enforcement, consent and cost recovery orders involved the performance of a removal action to address groundwater PCB contamination found at several areas. The work included delineation and identification of a PCB-contaminated oil layer in soils and the sampling to determine the adequacy of the removal activities to be performed. Although total cost recovery of only $1M was ordered from PREPA in 2017, total inflation adjusted compliance costs were estimated at $4.8M. According to an EPA OIG report[7] on multimedia enforcement activity, in June 1999 EPA settled with Puerto Rico Electric Power Authority to bring all its plants into compliance with all environmental statutes. The settlement resulted in $1.5 million in penalties, $4.5 million in SEPs, and the Power Authority spending over $200 million to comply with the agreement. It is not clear what portion of this case were CERCLA or RCRA violations.

d. Fitchburg Gas & Electric Light (FG&E) (CERCLA, 2002, $2.3M) An FY2002 Consent agreement required a site cleanup of Asbestos, Mercury and PCB contaminated soil. This is one of only two EPA enforcement cases at this site in FY2003, the other was for TSCA PCB violations. Two transformers needed to be properly dated and stored for no more than 30 days prior to EPA notification, and disposed within a year. These violations were discovered by FG&E and voluntarily

[6]Case Summary: Duke Energy Agrees to $3 Million Cleanup for Coal Ash Release in the Dan River, accessed 10 Jun 2019 at https://www.epa.gov/enforcement/case-summary-duke-energy-agrees-3-million-cleanup-coal-ash-release-dan-river

[7] EPA OIG report 2000-P-000018, EPA's Multimedia Enforcement Program, 30 June 2000.

disclosed to EPA in response to an EPA information request letter. This occurred after a whistleblower action from a former employee, a citizen complaint to the EPA administrator, and the impending Superfund site removal investigation.

e. Dow Chemical - Cogen Facility (RCRA, 2005 & 2010, $2.3M) While this Dow facility manufactures chemicals and generates hazardous waste, it also operates a co-generation electrical power facility which has been the source of two independent RCRA cases. In 2005, a RCRA 3013A order for testing & reporting required $1.5M in a Cooperative Agreement between LDEQ EPA and DOW for groundwater monitoring and testing and protection of the public water system for the city of Plaquemine, LA. An order in 2010 was also issued in response to other violations found under RCRA regulations. The CAFO required Dow to pay a penalty in the amount of $200K, implement a SEP, and perform injunctive relief. Later in FY2014, because of communications between Dow and EPA, the SEP was removed from the order and the penalty was increased by $80K.
f. Northern Indiana Public Service Company (NIPSCO) Bailly Generating Station (RCRA, 2005, $1.8M) NIPSCO and EPA Region 5 entered an Administrative Order on Consent to clean up past releases under RCRA Section 3008(h). This streamlined corrective action agreement covered the Bailly Generating Station in Chesterton, Indiana. The facility is a coal-fired power plant and is adjacent to the Indiana Dunes National Lakeshore. NIPSCO agreed to investigate and correct past releases of cadmium, chromium, and lead. Additional enforcement activity has also occurred at this site[8].
g. North Slope Borough, South Pad (RCRA, 2015, $1.3M) In FY2015, EPA Region 10 settled with the North Slope Borough (Barrow, Alaska) for violations of RCRA. This location was a Large Quantity Generator of hazardous waste and a distribution facility for electric power. The implementing regulations of RCRA require entities that generate solid waste to determine if the waste is hazardous. North Slope Borough failed to perform hazardous waste determinations on at least five separate waste streams generated at the South Pad facility located on Nunavaaq Street in Barrow, Alaska, approximately 0.8 mile south-southwest of the Wiley Post-Will Rogers Memorial Airport prior to November 5, 2012. In addition, the Borough stored more than 45K pounds of hazardous waste on the South Pad without a storage permit.
h. Union Electric Ray Avenue Superfund Site (CERCLA, 2009, $477K) Two separate FY2009 CERCLA cases ordered the investigation, removal and associated record keeping for the PCB and hydrocarbon contaminated soils at the Union Electric site. Although Superfund provided funding at this location from FY95 through FY2004, only $40K in 2009 costs were recovered.
i. Potomac Electric Power (PEPCO) (RCRA, 1993, $401K) At multiple facilities in Washington DC and Virginia, over the period Jan 1987 through Jan 1990, hazardous wastes were shipped to disposal facilities without proper manifests, transported to other PEPCO facilities for incineration without disposal permits, and stored for extended periods. PEPCO has faced 7 EPA enforcement cases over the period FY1986 through FY2017, for RCRA, TSCA and CWA violations. The largest of

[8] EPA Enforcement information on Northern Indiana Public Service Company Clean Air Act Settlement accessed 10 Jun 2019 at https://www.epa.gov/enforcement/northern-indiana-public-service-company-clean-air-act-settlement

these was a FY15 $4.1M CWA case for stormwater effluent violations of metals and other pollutants discharged to the Anacostia River between 2012 and 2016.

j. Puerto Rico Electric Power Authority - Aguirre (RCRA, 2005, $368K) At the time of both inspections, PREPA was storing water mixed with used oil and degreaser from its processing units in a stormwater pool. The compliance action cost for this case was substantially higher than the federal penalty.

k. Pilgrim Nuclear Power Company (RCRA, 1998, $250K) The facility failed to properly manage its hazardous waste including labeling, dating, storage of incompatible wastes, storage in poor condition containers. They also failed to conduct inspections, training and waste determinations. There have been no further recorded EPA violations at this site since 1998.

C. Review of Relevant Criminal cases - EPA's criminal enforcement program focuses on criminal conduct that threatens people's health and the environment. It was established in 1982 and granted full law enforcement authority by Congress in 1988. They enforce the nations laws by investigating cases, collecting evidence, conducting forensic analyses and providing legal guidance to assist with prosecutions. Details on eight completed cases are presented below, and involve releases of asbestos, hydrazine, diesel fuel, detox solution, sulphuric acid, chlorine waste and "black liquor", and tampering with emissions equipment. Criminal prosecutions in two CAA and three CWA cases in the Electrical Generation, Transmission and Distribution include the following:

a. On January 29, 2019, an individual of Versailles, Ky., pleaded guilty in U.S. District Court[9] to knowingly failing to remove asbestos in a South Point, Ohio electric power plant. The individual was the majority owner and operator of South Point Biomass Generation LLC. He acquired the coal burning electric power plant on Collins Avenue in South Point to convert it to a power generating plant that would use renewable energy. The plant contained seven dormant coal-burning boilers along with their associated piping. According to court documents, the individual commissioned an asbestos survey on the boiler room in 2008, which revealed nearly 224,000 square feet of materials containing asbestos. Beginning in 2011 through October 2013, he and others removed approximately two and a half million pounds of metal from the facility and sold it as scrap. He knew significant portions of the metal removed were covered in asbestos. He directed others to help him cut through the asbestos labeling on several pipes to obtain the scrap metal underneath. The asbestos was stripped from the metal while dry and left on each of the six floors of the power plant. The individual pleaded guilty to one count of violating the Clean Air Act.

b. On 23 Mar 2017, Berkshire Power Company (BPC) and Power Plant Management Services, Inc. (PPMS) were sentenced[10] to pay fines and payments totaling over $7 million for tampering with air pollution emissions equipment, and PPMS was also sentenced for submitting false information to both environmental and energy

[9] DOJ press release of 29 Jan 2019 accessed on 10 Jun 2019 at https://www.justice.gov/usao-sdoh/pr/power-plant-owner-pleads-guilty-failing-remove-224000-square-feet-asbestos-demolishing

[10] EPA Summary of Criminal Prosecution accessed 10 Jun 2019 at https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?action=3&prosecution_summary_id=2981

regulators relating to the Berkshire Power Plant ("the Plant") in Agawam, Mass. In May 2016, BPC (owner of Berkshire Power Plant) and PPMS (the Plant manager) pleaded guilty to felony charges that they violated and conspired to violate the federal Clean Air Act. These charges arose from air pollution monitoring equipment tampering and related false emissions reporting between 2009 and 2011. PPMS also pleaded guilty to violating the Federal Power Act, the first-ever criminal charges under this statute, for making false statements to the regional power grid administrator, ISO-New England, regarding the Plant's availability to produce power. According to documents filed in federal court, between January 2009 and March 2011, BPC engaged PPMS to manage the Plant, including overseeing day-to-day operations and maintenance and to act as the owner's representative for the Plant. A PPMS employee served as the Plant General Manager and as BPC's on-site representative. PPMS and BPC caused staff at the Plant to tamper with the Plant's air pollution monitoring equipment to conceal the fact that the Plant was emitting air pollutants more than permitted levels. This tampering was accomplished by intentionally biasing the Plant's Continuous Emissions Monitoring System so it would show lower emissions levels than were actually being produced by the Plant. BPC and PPMS then used this inaccurate data in filing required emissions reports with the U.S. Environmental Protection Agency (USEPA) and the Massachusetts Department of Environmental Protection (MassDEP). The purpose of the tampering was to avoid lost revenues that would have resulted from reducing power production to stay within the Plant's air pollution emissions limits, or by taking the Plant out of service to implement needed repairs of the Plant's pollution control and other equipment. During the tampering investigation, criminal investigators also learned that PPMS made and caused staff at the Plant to make false statements to the ISO-New England, about the Plant's availability to produce power for the New England grid. They also caused staff at the Plant to falsely claim to the ISO that the Plant was available to produce power when it was not. PPMS did this to maximize the Plant's revenues and to minimize repair expenditures.

c. On November 22, 2016, representatives of Duke Energy Beckjord LLC pled guilty in federal court to negligent discharge of oil, in violation of the Clean Water Act. The filed plea agreement includes a $1 million fine in addition to restitution. On August 18, 2014, Duke Energy caused a spill of approximately 9,000 gallons of diesel fuel from its Walter C. Beckjord generating station facility in New Richmond, Ohio to the Ohio River. The oil sheen on the Ohio River from the discharge extended for approximately 15 miles. A Duke Energy operator transferring fuel from three 705,000-gallon capacity tanks ran the forwarding pump too long and over-filled the two 30,000-gallon capacity above-ground fuel tanks. Diesel fuel spilled from the tank overfill vents into a concrete secondary containment area. A valve on the secondary containment area had been improperly left open by other Duke employees, causing the spilled diesel fuel to escape the containment area and enter directly into the Ohio River. The Ohio River is a source of drinking water for residents of both Kentucky and Ohio. Because of the spill, the Northern Kentucky, Greater Cincinnati and

Louisville water supply intakes were closed on August 19, 2014. Water intakes were reopened the next day, after water samples did not detect the diesel fuel in the drinking water. Significant resources were expended by at least 35 government and private sector agencies in the emergency response and clean-up related to the discharge. Duke Energy's prompt clean-up efforts resulted in the recovery of only a small portion of the discharged oil. To date, Duke Energy has reimbursed more than $1.2 million to those entities for costs incurred in connection with the spill. Further, Duke Energy has deconstructed the bulk fuel oil storage tanks involved in the spill and no longer stores bulk fuel oil at the Beckjord facility. As part of the plea agreement, Duke Energy has agreed to also pay $100,000 to the Foundation for Ohio River Education, a non-profit organization dedicated to preserving the cultural, ecological and economic value of the Ohio River through community education. Duke Energy will also issue a written public apology in an advertisement published in the Cincinnati Enquirer[11].

d. On December 4, 2001 an individual was indicted on one count of violating the CWA {33 U.S.C. 1311(a) - illegal discharge of a pollutant and 1319(c)(2) - knowingly violates} and 18 U.S.C. 2. He purchased the power plant at the former Harriman Power and Paper Mill. The site had a storage tank that contained approximately 500,000 gallons of a mixture of pulp waste known as "black liquor" and water. He and an employee went to the tank during a rainstorm and opened a value which allowed the contents of the tank to flow into a pond that emptied into the Emory River. The black liquor had a high Chemical Oxygen Demand level which had a negative impact on vegetation and aquatic life in the river. He later pled guilty to the CWA count and was sentenced[12] to 12 months home confinement, 24 months' probation, perform 300 hours of community service, publish an apology in the Knoxville and Roan County newspapers, pay a $10,000 fine and $74,956.64 in restitution to the Tennessee Department of Environment and Conservation, Tennessee Valley Authority Police and the Southern Environmental Enforcement Training, Inc.

e. On 11 June 1999, the Puerto Rico Electric Power Authority (PREPA) was sentenced in federal court to 2 years of probation for a criminal violation of the CWA. Under the conditions of a criminal plea arrangement, PREPA will also pay a $140,000 fine and take steps to enhance environmental compliance. The sentence closes the books on an EPA-launched investigation of a September 1995 sulfuric acid spill at PREPA's Palo Seco facility. On September 2, 1995, nearly 10,000 gallons of sulfuric acid leaked from a storage tank when the valve on the tank failed. The acid was temporarily contained in a concrete retention base surrounding the tank. On September 3, PREPA employees transferred the acid to a wastewater treatment tank not designed for storage of sulfuric acid. The wastewater treatment tank contained over 200,000 gallons of wastewater. PREPA added caustic soda to the tank to

[11]EPA Summary of Criminal Prosecution accessed 10 Jun 2019 at https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?action=3&prosecution_summary_id=2924
[12]EPA Summary of Criminal Prosecution accessed 10 Jun 2019 at https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?action=3&prosecution_summary_id=940

neutralize the sulfuric acid and raise the pH level. The strategy failed, and approximately 270,000 gallons of acidic water leaked from the wastewater tank and emptied into nearby wetlands, contaminating the water and killing fish and other marine life. As part of its probation, PREPA must establish and maintain an Environmental Compliance Program, which will be designed to help ensure PREPA's compliance with environmental laws. PREPA will also establish and maintain a spill contingency project to avoid future mismanagement of spills. PREPA will be required to file quarterly reports with the court and federal government showing the status of the Environmental Compliance Plan and the contingency plan[13].

f. Between 1994 and 1996, Northeast Utilities and the Northeast Nuclear Energy Company were involved in the improper monitoring of water discharged into the Housatonic River and Long Island Sound. In addition, Northeast Utilities admitted that it illegally discharged hydrazine used to clean water pipes into Long Island Sound. Hydrazine is a highly toxic chemical and exposure to enough quantities of it can cause significant damage to fish and wildlife populations and can cause serious illnesses in people who encounter it by using surface waters for drinking or recreational purposes. Northeast Nuclear admitted to 19 violations of the Atomic Energy Act involving the falsification of the qualifications of workers at nuclear power plants. On September 27, 1999[14] the companies were charged with one count of violating the Atomic Energy Act (AEA) {33 U.S.C. 1252}. The companies pled guilty and were sentenced to 36 months' probation, ordered to pay a special assessment fee of $1,800. They were also ordered to pay $10 million in fines and penalties as follows: $3.35 million criminal fine for violating the CWA, $3.35 million criminal fine for violating the AEA, $650,000 to Riverfront Recapture for a leadership camp for disadvantaged youth, $1 million to the State of Connecticut to purchase riverfront land for public parks, $1 million to endow a Business Ethics Chair at the University of Connecticut and $650,000 to endow an Environmental Clinic at the University of Connecticut.

g. An individual was an on-site contractor for the Beta Corporation at the Niagara Mohawk Power Plant in August 1993. An illegal discharge of 1200 gallons of detox solution was discharged into Lake Ontario. The substance which was discharged was an excess quantity left over from an approved treatment relating to Zebra Mussels. This discharge violated not only the CWA but also violated the New York State Pollution Discharge Elimination System discharge permit. On February 27, 1996, the defendant was charged with violating the NYS Environmental Conservation Law {ECL 17-0701 (1)(c) - increasing/altering the content of wastes discharged into the waters of the State of New York}. The defendant pled guilty and was sentenced to a $2,500 fine[15].

[13]EPA 11 Jun 1999 Press Release accessed 10 Jun 2019 at https://archive.epa.gov/epapages/newsroom_archive/newsreleases/b11af2a174b97b6c8525724800696dd1.html
[14]EPA Summary of Criminal Prosecution accessed 10 Jun 2019 at https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?action=3&prosecution_summary_id=862
[15]EPA Summary of Criminal Prosecution accessed 10 Jun 2019 at https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?action=3&prosecution_summary_id=568

h. The three individual defendants admitted that on several dates between January and September of 1992, they falsified residual chlorine analysis which were required to be included in the DMRs that were submitted to the Minnesota Pollution Control Agency. The discharges were made into the Mississippi River, from the power plant's cooling system. On November 4, 1993, the three defendants were charged[16] with violating the CWA {33 U.S.C. 1319(c)(6)(A) - failing to conduct tests on waste discharge}. One defendant was charged with 33 counts, another with 28 counts and the third with eight counts. The defendants each agreed to pled guilty to one count. Each was sentenced to a $2,500 fine

D. Relevant industry-specific focused federal enforcement initiatives – One way that EPA's Office of Enforcement and Compliance Assurance focuses enforcement and compliance resources on the most serious environmental violations is with enforcement initiatives that develop and implement national program priorities. Enforcement initiatives are an important tool for identification of noncompliance and subsequent actions to compel return to compliance. Additionally, these initiatives emphasize use of the full range of compliance assurance tools, not only enforcement, and can thereby reduce risk by helping facilities prevent releases that might otherwise be caused by noncompliance. In recent years, facilities in the Electric Power Generation, Transmission and Distribution industry were included in two initiatives:

a. Ensuring Energy Extraction Sector Compliance with Environmental Laws – Since FY 2011, this initiative focuses on significant public health and environmental problems, including exposure to significant releases of volatile organic compounds, reducing CAA non-attainment, and reducing water quality impairment. EPA and state investigations identified concerns regarding significant emissions from storage vessels at onshore oil and natural gas production facilities. To discuss certain engineering and maintenance practices and potentially address compliance concerns and reduce emissions, a Compliance Alert was released on Sep 2015[17]. Figures 3 and 4 below detail some of the initiative inspection and enforcement results from FY 2011 through FY 2017[18]. An average of 11% of federal inspections resulted in enforcement activity. FY2016 was the lowest enforcement rate at 6% and FY2015 the highest at 19%. Please note that initiative case population and statistics presented are not limited to the Electric Power Generation, Transmission and Distribution Industry.

[16]EPA Summary of Criminal Prosecution accessed 10 Jun 2019 at https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?action=3&prosecution_summary_id=536

[17] EPA Compliance alert of Sep 2015 accessed 10 Jun 2019 at Epa https://www.epa.gov/sites/production/files/2015-09/documents/oilgascompliancealert.pdf

[18] EPA FY2019 Update to National Compliance Initiative accessed 10 Jun 2019 at https://www.epa.gov/enforcement/national-compliance-initiative-ensuring-energy-extraction-activities-comply

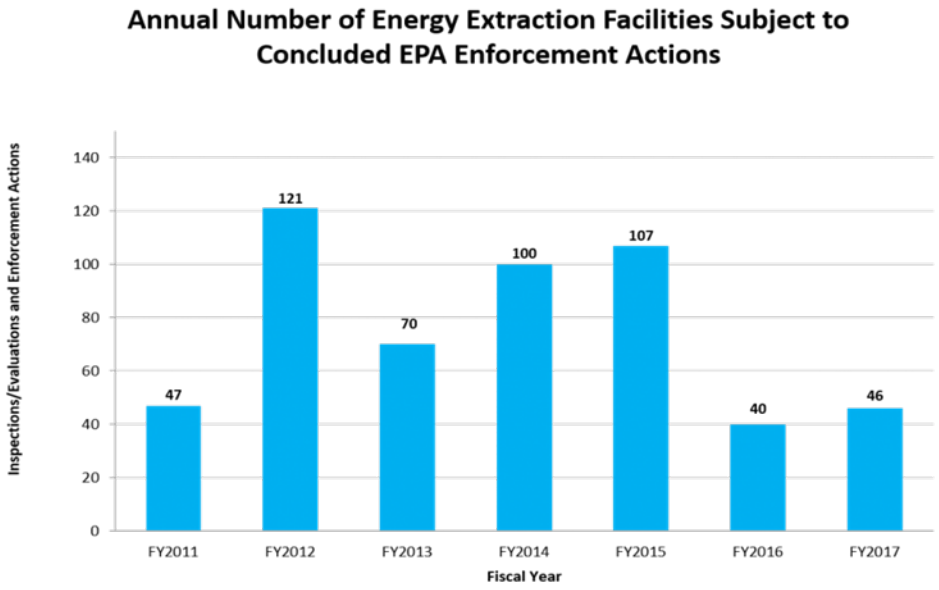

Figure 3

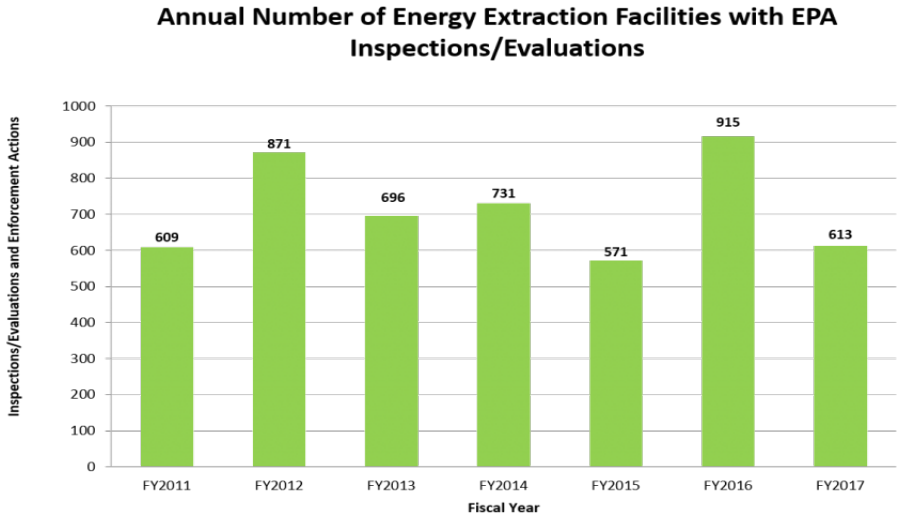

Figure 4

b. Reducing Air Pollution from the Largest Sources - This initiative focused on ensuring that large industrial facilities, like coal fired power plants, comply with the CAA when building new facilities or making modifications to existing ones. This initiative has resulted in significant cuts in air emissions, especially from coal fired power plants, since in 2005. Figures 5 and 6 below detail some of the initiative inspection

and enforcement results and outcomes from FY 1999 through FY 2017[19]. Please note that initiative case population and statistics presented are not limited to the Electric Power Generation, Transmission and Distribution Industry.

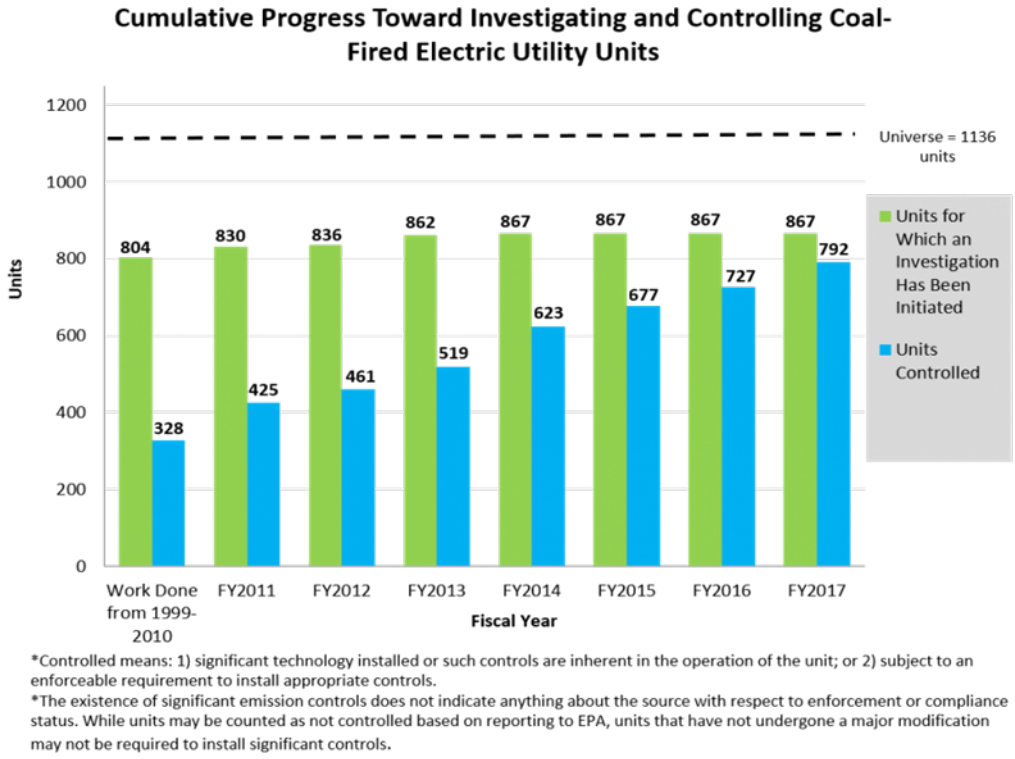

Figure 5

[19]EPA National Compliance Initiative: Reducing Air Pollution from the Largest Sources accessed 10 Jun 2019 at https://www.epa.gov/enforcement/national-compliance-initiative-reducing-air-pollution-largest-sources

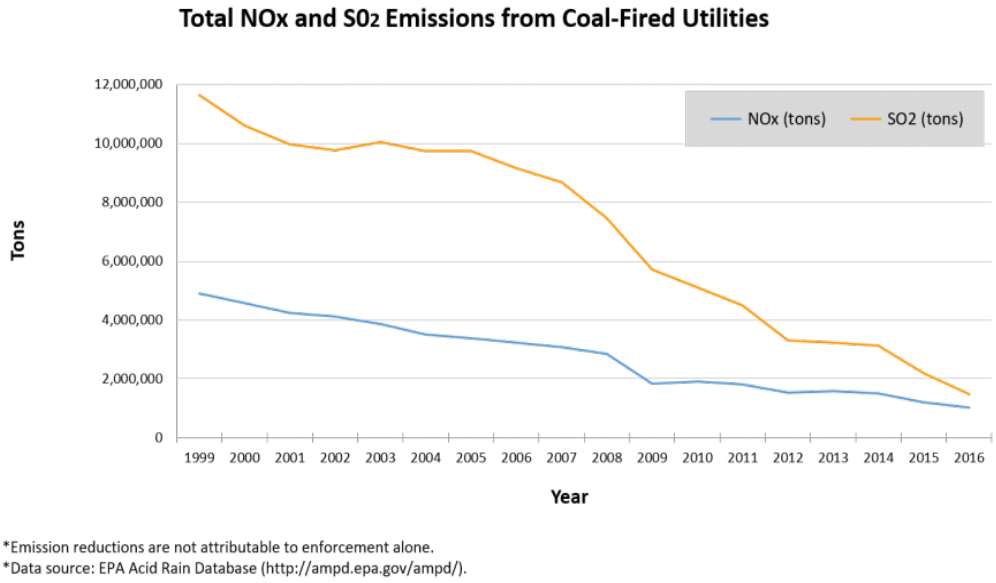

Figure 6

E. Enforcement of new Electric Power Generation, Transmission and Distribution industry federal requirements –The 2015 Coal Combustion Residual (CCR) Final Rule did not provide EPA with enforcement authority[20]. Enforcement was by citizen suits only, although the Agency could use RCRA § 7003 to address conditions that may present an "imminent and substantial endangerment." The Water Infrastructure Improvements for the Nation (WIIN) Act[21] was signed in December of 2016 and expanded enforcement authorities available to EPA. The Act states that EPA may use its information gathering and enforcement authorities under RCRA §§ 3007 and 3008 to enforce the 2015 CCR Final Rule or permit provisions[22]. At this time, no cases of federal enforcement of this regulation have yet been concluded.

[20] The 2015 CCR Final Rule was promulgated under Subtitle D of RCRA, it did not require the states to adopt or implement the regulations or to develop a permit program. It also did not provide a mechanism for EPA to approve a state permit program to operate "in lieu of" the federal regulations.
[21] 33 U.S.C. 2242
[22] Section 2301 of the WIIN Act amended RCRA to allow States to submit permit (or other system of prior approval and conditions) programs to EPA for approval. The Act states that if a state CCR permitting program is approved by the Agency (known as a participating state), those permits will operate "in lieu of" the federal regulations in part 257. The Act states that EPA will develop permits for those units located in tribal lands and, if given specific appropriations, EPA will develop a permitting program for those units located in non-participating states.