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Nuclear Employers No Longer Shielded From Whistleblower State Tort Claims: Fallout From English v. General Electric Company

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NUCLEAR EMPLOYERS NO LONGER SHIELDED FROM WHISTLEBLOWER STATE TORT CLAIMS: FALLOUT FROM ENGLISH v. GENERAL ELECTRIC COMPANY

I. Introduction

In 1978, Congress amended the Energy Reorganization Act of 1974, adding section 210. This amendment provided employees in the nuclear industry with a valuable federal statute to combat workplace discrimination. This law created a federal remedy to deter re-

   The Congress hereby declares that the general welfare and the common defense and security require effective action to develop, and increase the efficiency and reliability of use of, all energy sources to meet the needs of present and future generations, to increase the productivity of the national economy and strength its position in regard to international trade, to make the Nation self-sufficient in energy, to advance the goals of restoring, protecting, and enhancing environmental quality, and to assure public health and safety.
3. See 42 U.S.C. § 5851 (a) (1988) (protecting any person whose employer is licensed by the Nuclear Regulatory Commission ("NRC"), or has applied for a license, or is a contractor or subcontractor of a NRC licensee or applicant).
taliation against "whistleblowers" who might highlight possible health or safety problems at nuclear facilities. However, in spite of this federal legislation, many employees have elected to sue in state court or pursue litigation in both federal and state forums. Consequently, numerous recent decisions raised the question of whether state actions were preempted by the federal statute.

_English v. General Electric Company_ narrowed the scope of the federal whistleblower statute. In deciding the question of whether federal law preempted a state law cause of action for intentional infliction of emotional distress resulting from retaliatory employer conduct, the United States Supreme Court held that petitioner's tort claim was not preempted. Moreover, the Court opened the door to future punitive damage claims.

The preemption defense will no longer shield nuclear industry employers who discriminate against whistleblowers and, consequently, are sued under a state tort claim. As these suits become

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   If . . . the Secretary [of Labor] determines that a violation of subsection (a) of this section has occurred, the Secretary shall order the person who committed such violation to (i) take affirmative action to abate the violation, and (ii) reinstate the complainant to his former position together with the compensation (including back pay), terms, conditions, and privileges of his employment, and the Secretary may order such person to provide compensatory damages to the complainant. 42 U.S.C. § 5851 (b) (2) (B) (1988); see also 42 U.S.C. § 5851 (d) (1988). "Whenever a person has failed to comply with an order issued under subsection (b) (2) of this section, the Secretary may file a civil action in . . . United States district court . . . [which] shall have jurisdiction to grant all appropriate relief including, but not limited to, injunctive relief, compensatory, and exemplary damages." 42 U.S.C. § 5851 (d) (1988).

6. See Kohn & Carpenter, Nuclear Whistleblower Protection and the Scope of Protected Activity under Section 210 of the Energy Reorganization Act, 4 ANTIoCH L.J. 73, 74 (1986) (defining a whistleblower as an employee who discloses conduct by his or her employer which the employee reasonably believes to be "a violation of any law, rule or regulation, mismanagement, corruption, abuse of authority or threat to public health and safety at the worksite"). Id.


8. See infra notes 164-206 and accompanying text (discussing jurisdictional conflicts within the scope of federal preemption under section 210).


10. Id. at 110 S. Ct. at 2272.

11. Id. at 110 S. Ct. at 2280; see infra note 229 and accompanying text.

12. See Kohn & Kohn, An Overview of Federal and State Whistleblower Protections, 4 ANTIoCH L.J. 99, 111 (1986). Employees often include other more traditional claims in their retaliatory discharge complaints. Id. These include a breach of the employment contract, an implied contract, an implied covenant of good faith and fair dealing, negligence, fraud, defamation of character, invasion of privacy and an intentional infliction of emotional distress. Id. Workers who file claims under those causes of action are entitled to jury trials and punitive
more costly in the aftermath of the *English* decision, employers will be forced to address nuclear employee complaints by other means, including altering radiological safety procedures.

The *English* decision further represents a landmark in the field of non-nuclear employee rights. Although the Court dealt solely with federal nuclear law, the impact of this decision is much broader. Seven other statutes contain identical or similar whistleblower protections affecting virtually all of the Nation's manufacturers and businesses. Whistleblowers everywhere who suffer from employer discrimination, should now be able to proceed with their civil actions in state court.

The purpose of this Comment is to examine the importance of nuclear safety in the commercial nuclear utility plant environment, as well as the states' strong interest in promoting such care. It will review the extent to which Congress has preempted the nuclear safety field. This Comment will then assess the judicial foundation upon which the Supreme Court's reasoning in *English v. General Electric Company* was based. Following a discussion of the *English* decision itself, this Comment will evaluate the impact of that holding upon American employers' future conduct in addressing employee complaints and subsequent litigation. Finally, this Comment will conclude that the *English* decision fosters prompt employer response to whistleblower complaints.

II. IMPORTANCE OF NUCLEAR SAFETY

A. How Nuclear Power Works

Nuclear energy is created through the process by which a decaying uranium atom emits a neutron which is absorbed by an-
other nearby uranium nucleus, causing this second nucleus to fission (split), releasing thermal energy (heat), neutrons and other forms of radiation. Many of these “second generation” neutrons are themselves absorbed by subsequent uranium nuclei, resulting in a “nuclear chain reaction.” Sustaining and controlling these millions of reactions each second occurs inside a nuclear reactor.

A reactor consists of a core, which is filled with pellets of uranium packed in bundles of thin cylindrical rods. Inserted into the uranium core are still other rods, usually composed of cadmium or boron, which absorb the emitted neutrons. These “control rods”...
regulate the neutron flux and, therefore, the reaction rate. A nuclear reactor is "started-up" by raising the control rods to precisely calculated levels. The neutron population increases until "steady-state" conditions are attained and the reactor is "critical." Heat, one of the by-products of the fission process, is carried away by high pressure water which is circulating constantly through channels inside the reactor core.

In the United States, commercial utilities utilize two major types of nuclear reactors: the boiling water reactor (hereinafter "BWR"); and the pressurized water reactor (hereinafter "PWR"). In both of these systems, the thermal energy generated inside the reactor is utilized to heat water into steam. This steam is then piped to a turbine connected to a generator, which, when turned, produces electricity.

29. Id. Control rods are utilized to maintain fine control over reactor power level and compensate for neutron flux effects. Id.
30. Id.
31. Id. at 39. Shim rods are utilized to bring the reactor critical and for coarse power level control. Id. Control rods are normally completely out of the core when the reactor is at full power. Id. However, these rods are kept in a "cocked" position outside the core while it is critical. Id.; see LaMarsh, supra note 20, at 102. When the nuclear chain reaction proceeds at a constant rate, the reactor is said to be "critical." Id.
32. Id.; see Babcock & Wilcox, supra note 20, at 19-3. In a pressurized water reactor, the reactor coolant is maintained under pressure sufficiently high enough to prevent boiling. Id. Steam is generated in heat exchangers in which the coolant transfers its heat energy to the secondary water system to produce steam. Id. In boiling water reactors, the reactor coolant is allowed to boil and steam is produced in the reactor. Id.
33. See Northeast Utilities, Nuclear Power at Northeast Utilities 6 (1989). In a BWR, the heat from nuclear fission causes water flowing through the reactor to boil into steam which flows directly to the turbine-generator. Id. The steam then leaves the turbine and passes through a condenser where it is cooled and changed back into water. Id. The water is pumped back to the reactor and the cycle begins again. Id.
34. Id. In a PWR, the water flowing through the reactor is heated under pressure to keep it from boiling. Id. This "primary system" water flows to steam generators where its heat is transferred through the walls of tubes to another body of water, the "secondary system," which is allowed to boil. Id. The resulting steam drives the turbine. Id. The steam then leaves the turbine and passes into a condenser where it is cooled and changed back into water. Id. Pumps return the secondary system water to the steam generator for reheating and reuse in the plant cycle. Id.
35. See F. Rahn, A. Adamantiades, J. Kenton & C. Braun, A Guide to Nuclear Power Technology 354 (1984) [hereinafter "Rahn"]. "A steam turbine is a device in which the energy stored in steam in the form of high temperature and pressure is converted into an impulse on the moving blades of the rotor and hence into rotating energy of the shaft." Id.
36. See Bureau of Naval Personnel, Principles of Naval Engineering 506 (1970). The alternating-current generator rotor may be driven by a steam turbine. Id. Direct current is passed through windings on the rotor, forming a rotating magnetic field. Id. As the rotor turns, alternating output voltages are induced in the stationery stator windings. Id.
37. See Rahn, supra note 35, at 21.
B. Application to the Commercial Generation of Electricity

Worldwide, nuclear energy is utilized to generate the electrical equivalent of more than seven and one-half million barrels of oil per day. In the United States, more than 100 reactors now generate the electrical equivalent of about two million barrels of oil per day and provide over fourteen percent of the nation's electricity.

The lure of nuclear energy, however, carries with it the additional responsibility of minimizing the unseen but potentially lethal danger of radiation. Beta and gamma radiation unleashed through the fission process can cause biological damage to living tissue. The amount of damage depends on the intensity of the radiation. During the course of their work, most employees at commercial nuclear power facilities are exposed to some minimal amounts of this radia-

38. See NORTHEAST UTILITIES, supra note 33, at i. Furthermore, the commitment to the development of nuclear power continues to grow. Id. There are now more than 300 operating reactors outside the U.S. and more than 200 additional nuclear power plants are either under construction or planned. Id.

39. See J. TOMAIN & J. HICKEY, JR. WITH S. HOLLIS, ENERGY LAW AND POLICY 389 (1989) [hereinafter “TOMAIN & HICKEY”]. “At the end of 1987, there were 107 commercial nuclear reactors operating in the United States, seven units in ‘startup’ status, an additional 19 units had construction permits, and two plants were on order for a total of 125 possible nuclear generating units.” Id.

40. See NORTHEAST UTILITIES, supra note 33, at i.

41. See TOMAIN & HICKEY, supra note 39, at 389. However, no new commercial nuclear power plants have been built in the U.S. since 1978 and all commercial reactors ordered since 1974 have been canceled; see also NORTHEAST UTILITIES, supra note 33, at i (opining that “rapidly escalating construction costs coupled with decreasing growth in demand for electricity eventually led to the end of new reactor orders and the cancellation of many plants under construction.”). Id.

42. See LEWIS, supra note 27, at 13.

43. Id. at 14. Gamma and beta radiation from fission products can cause damage in very different ways. Id. Gamma rays penetrate the human body at even moderate energy levels and produce a uniform radiation absorption dose over the whole body. Id. By contrast, charged beta particles penetrate only the surface tissue, resulting in skin burns similar to sunburn. Id.; see also Begley, The 20th - Century Plague, TIME, May 12, 1986, at 36. Radiation “wreaks havoc on the body's proteins and genes, causing both short- and long-term injury. The impact is greatest on tissue in which cells reproduce rapidly: skin cells, bone-marrow cells, intestinal cells and the cells from which spring eggs and sperm.” Id.

44. Id. Radiation injury is unpredictable. Id. The effects of radiation vary according to the isotopes involved. Id. Different isotopes concentrate in different tissues of the body, where after many years of exposure, may cause cancer. Id. The higher the dosage of radiation, the sooner the effects. Id. At moderate levels, radiation sickness may occur, resulting in loss of appetite, nausea and diarrhea. Id. At higher radiation levels, high fevers occur and victims lose weight and become leathargic as their gastrointestinal tracts lose the ability to absorb nutrients. Id. Damage to blood-forming tissue produces a drastic lowering of the white blood cell count, crippling defenses against infection. Id. Very high levels of radiation result in death. Id. However, radiation levels decrease rapidly with distance. Id.
tion and therefore are classified as "radiation workers." The radiation exposure of an employee is regulated by the Nuclear Regulatory Commission ("NRC"). Radiation exposure standards are based on the lifetime maximum limits which an employee can be exposed to during the normal course of his duties without an increase in the risk of health or genetic effects. The goal is to reduce a nuclear employee’s radiation exposure levels to those as low as reasonably achievable.

Consequently, it is necessary to ensure that commercial nuclear facility plants are designed, constructed and tested to insure absolute control over the release of excess radioactive material under all circumstances. This is accomplished through the use of three levels of containment. First, radioactive fuel is encased in a protective metal coating or "cladding" to prevent release. The reactor, its associated piping and components constitute a second barrier to the release of harmful radiation. Finally, the reactor system containment building prevents any escape of harmful radioactive material. All three

45. See NORTHEAST UTILITIES, supra note 33, at 20. Continuous self-monitoring is accomplished through the use of dosimeters, which are devices that indicate how much radiation has been received. Id. at 21. To obtain a more accurate radiation record, thermoluminescent dosimeters ("TLD's") may also be worn. Id.; see supra note 24 and accompanying text (discussing forms of radiation).

46. See NORTHEAST UTILITIES, supra note 33, at 20; see also NORTHEAST UTILITIES, A Report to our Neighbors (1986). Human exposure to radiation is measured in units called "rems" or, more commonly, "millirems," one thousandth of a rem. Id.; see also How Much is Too Much, TIME, April 19, 1979, at 16. The NRC has set a permissible annual level of radiation exposure for the general public of 500 millirems and 5,000 millirems for nuclear power plant workers. Id.; see also D. OKRENT, NUCLEAR REACTOR SAFETY 42-43 (1981). The upper limit of exposure in a nuclear accident should be no higher than the maximum once-in-a-lifetime emergency dose of 25,000 millirem. Id.

47. See NORTHEAST UTILITIES, supra note 33, at 20; see also How Much is Too Much, TIME, supra note 46, at 16. Over a year's time, the average American is exposed to 100-200 millirems. Id. This is roughly equivalent to the exposure from 10-20 chest x-rays. Id. About 50 percent of that radiation comes from the sun and cosmic rays, another 45 percent from exposure to diagnostic and therapeutic medical equipment, and only about 5 percent from atomic fallout and household products such as television and microwave ovens. Id.

48. See NORTHEAST UTILITIES, NEW EMPLOYEE TRAINING, Safety-2.


50. Id.

51. Id. The current practice is to design the nuclear system to insure that cladding temperatures never exceed a limit that would lead to melting, cracking, rupturing or oxidizing. Id.

52. Id. Even if one or more fuel elements were to be breached, the system barrier would also have to be breached in order to release radioactivity. Id. However, this could occur through valve stem leaks, pump bearing seal leaks, instrument line leaks, purging through vent or relief valves, or in the extreme case, primary piping rupture. Id.

53. Id. The reactor system is located inside a hugh containment building which is generally held at sub-atmospheric pressures to insure that any atmospheric leakage is inward. Id. The containment structures are designed to hold the entire contents of the primary system in
of these barriers must be breached before substantial levels of radioactivity can be released.

Furthermore, nuclear power plants must be operated without undue risk to the health and safety of their employees and the public at large. "[H]uman factors and the effectiveness of people determine success or failure at every stage, from the design of a [nuclear] plant and its equipment, through manufacture, construction, installation, and calibration, to testing, [operation], maintenance, repair, and management."\(^{54}\) Achievement of this objective requires that nuclear employees at all levels create and maintain safe working conditions.\(^{55}\) However, numerous safety system shutdowns\(^{56}\) have occurred throughout the nuclear power industry from the seemingly innocent jarring or bumping of sensitive equipment by employees.\(^{57}\) As a result, strict adherence to established safety rules and practices, as well as the elimination of any unsafe activities, is especially necessary in the commercial nuclear power industry.

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54. Sheridan, Human Error in Nuclear Power Plants, TECH. REV., Feb. 1980, at 28. Human errors occur with alarming frequency in complex systems such as nuclear facilities. \(\text{Id.}\) at 25. Human failure rates are higher, typically by a factor of 100, than those of major mechanical or electrical components in a nuclear plant. \(\text{Id.}\) at 26. Moreover, under conditions of high stress, such as a casualty or accident, human failure rates may approach 100 percent. \(\text{Id.}\) Consequently, the NRC requires three licensed operators in or near the control room of every operating nuclear reactor 24 hours a day. \(\text{Id.}\) One of these, the shift supervisor, must have passed a higher level of NRC certification than the others. \(\text{Id.}\)

55. See Williams, Governmental Drug Testing: Critique and Analysis of Fourth Amendment Jurisprudence, 8 HOFSTRA LAB. L.J. 1, 7 (1990) (footnotes omitted). "[D]rug use creates safety hazards in the workplace. Drug users create safety problems not only for themselves, but also for co-workers and the public. Drug users are thought have higher incidence of workplace injuries and accidents causing serious injury to others." \(\text{Id.}\); see also Castro, Battling the Enemy within, TIME, Mar. 17, 1986, at 59. "Drug users are three times as likely as nonusers to injure themselves or someone else." \(\text{Id.}\) "Federal experts estimate that between 10% and 23% of all U.S. workers use dangerous drugs on the job." \(\text{Id.}\) at 53.

56. See Jones, supra note 49, at 123. In a nuclear power plant, the electrical power output from the turbine generator is directly related to the neutron flux generated in the core. \(\text{Id.}\) Controlling the neutron flux to meet electrical demand is the function of a reactor control system. \(\text{Id.}\) In order to reduce the millions of fissions per second, a system of control rods entering the nuclear core in a controlled, deliberate manner acts to slowdown the nuclear reaction. \(\text{Id.}\) If this is accomplished automatically, it is considered a system trip. \(\text{Id.}\) If faster system shutdown is required, a "scram" (acronym for the now ancient Safety Control Rod Axe Man) can be utilized. \(\text{Id.}\) at 79. The nuclear scram is a method to rapidly shut down the fission process by immediate control rod insertion in the event of an unacceptably rapid up-power excursion. \(\text{Id.}\)

57. See NORTHWEST UTILITIES, supra note 48, at Safety-8. "Since 1984, an average of 35 such events per year (including approximately eight at-power scrams/trips per year) have been reported to the Institute of Nuclear Power Operations ('INPO')." \(\text{Id.}\)
C. Nuclear Accidents

When adherence to nuclear safety procedures becomes lax, disaster can result. Nuclear disaster is personified in the word "Chernobyl." Although many of the causes and effects of the accident at Chernobyl are still in dispute, the first indication that a nuclear-related problem had occurred in the Soviet Union came from Sweden, Finland and Denmark, who reported abnormally high levels of radioactivity. On April 28, 1986, the Soviet public news agency, TASS, announced that "[a]n accident has occurred at the Chernobyl nuclear power plant and one of the reactors was damaged."3

Apparently, technicians at Chernobyl had planned an experiment to determine how long the steam-driven turbines at the nuclear plant would continue to generate electricity if an unexpected power loss occurred. The chain of events that led to the disaster began on April 25, 1986, when plant operators began reducing the reactor's power level and disconnecting vital reactor protection systems in preparation for the test. On April 26, the workers began the actual experiment by reducing core cooling water flow and shutting off steam flow to the turbine. The graphite core immediately began to overheat, and since the emergency cooling system had been disconnected hours earlier, there was no backup system available to cool the reactor. Within seconds, an enormous nuclear power surge

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58. See The Chernobyl Syndrome, NEWSWEEK, May 12, 1986, at 22. The Chernobyl Nuclear Station is located in the town of Pripyat, about 80 miles north of Kiev, U.S.S.R. Id.

59. See NORTHEAST UTILITIES, supra note 46 and accompanying text.

60. Id. The Chernobyl complex was comprised of four 1000 megawatt graphite-moderated nuclear reactors. Id. A "moderator" is utilized to slow down neutrons so that a nuclear reaction can take place. Id. U.S. reactors use water as a moderator over graphite for several reasons. Id. First, safety problems associated with graphite, a potentially flammable material, inside the reactor core are eliminated. Id. Additionally, the related complex support systems are also unnecessary. Id. Second, water moderation allows for both operational flexibility and beneficial accident response because as the temperature of water increases, its reactivity characteristics decrease. Id. Finally, graphite reactors are much larger and more complex compared to their U.S. counterparts. Id.


62. Id. At 1 a.m., technicians began slowly lowering reactor power in conjunction with the impending test. Id. At 2 p.m., workers deliberately shut off the plant's emergency cooling system. Id. However, since a dispatcher wanted the reactor to continue to supply electricity to the region, operators allowed the reactor to continue to run at 50 percent power for nine hours, in violation of safety protocol. Id.

63. Id. At 1:23 a.m., operators began their experiment by shutting off valves to prevent steam from reaching the turbine-generator. Id. This would have caused the reactor to shut down, but workers wanted to be able to repeat the test if it failed, so they bypassed the automatic protection signal. Id.

64. Id. at 27. Within seconds, the reactor coolant pumps slowed, causing heat buildup and a steam bubble to form in the core, triggering a runaway reaction. Id. About 40 seconds
caused two explosions, which blew off the roof of the reactor building and started numerous fires. The graphite reactor core was exposed to the atmosphere and began to burn intensely, reaching temperatures of 2,800 degrees Fahrenheit. This inferno burned for twelve days, spewing deadly radioactive isotopes into the air, where winds carried them thousands of miles.

The long-term effects of the Chernobyl nuclear accident remain undetermined and it will be many years before any definite conclusions can be drawn. However, the region surrounding the Chernobyl nuclear power plant will continue to be dangerous for many years, with radiation levels as high as 2,500 times above normal. Approximately 135,000 people were evacuated from a 300 square mile area surrounding the facility. Ultimately, experts estimate that over 5,000 people will die in years to come from cancer caused by exposure to the high radiation levels. The Chernobyl accident demonstrated the seriousness of safety problems relating to nuclear reactors.

Although the United States has never hosted an accident of similar magnitude as that which occurred at Chernobyl, there have been safety system failures which have resulted in incidents at commercial nuclear utility plants. The Three Mile Island ("TMI") incident serves as a grim reminder to the American nuclear industry of what can occur when employee training and adherence to safety pro-

65. Id. At 1:24 a.m., two tremendous explosions rocked the plant. Id. Experts conclude that the first explosion probably resulted from the steam pressure inside the reactor which caused tubes in the core to rupture. Id. The second explosion, most likely due to the subsequent increase in hydrogen concentration, blew the top off the building. Id.

66. Id.

67. Id. The fire sent a plume of radioactive debris into the upper atmosphere while Soviet fire fighters in helicopters frantically attempted to extinguish the blaze by dumping 5,000 tons of boron, lead and other material onto the core below. Id. They did not succeed in putting out the fires until twelve days after the accident. Id.

68. Id. at 26.

69. Id.

70. See Marbach, supra note 61, at 26. As much or more radiation was released at Chernobyl as in the atomic bomb attacks on Hiroshima and Nagasaki. Id.


The term "nuclear incident" means any occurrence, including an extraordinary nuclear occurrence, within the United States causing, within or outside the United States, bodily injury, sickness, disease, or death, or loss of or damage to property, or loss of use of property, arising out of or resulting from the radioactive, toxic, explosive, or other hazardous properties of source, special nuclear, or byproduct material.

cedures becomes complacent. On March 28, 1979, employees of TMI Unit 2 were working on sensitive plant equipment with the reactor operating at 97 percent power. The crew inadvertently cut off one of the supplies of water necessary to remove reactor heat. Despite the error, emergency safety systems should have been able to automatically shut down and adequately cool the reactor. However, the uranium fuel reached dangerously high temperatures and the reactor core came within thirty to sixty minutes of a "meltdown." Radioactivity escaped from the containment building and the Governor of Pennsylvania ordered the precautionary evacuation of residents from the surrounding area. This accident resulted from a combination of factors, including equipment malfunction, inadequate


74. Id.; see A Nuclear Nightmare, TIME, Apr. 9, 1979, at 8. Just after 4 a.m. there as a feedwater pump failure which caused the steam generator to boil dry in a matter of minutes. Id. Consequently, the steam supply dwindled, tripping the 880-megawatt turbine generator off line. Id.

75. Id.; see Babcock & Wilcox, supra note 20, at 21-11. The reactor protection system automatically monitors system parameters to prevent the nuclear reactor from entering an unsafe operating condition. Id. It will shut down (trip or "scram") the reactor when power, reactor outlet coolant temperature, or coolant pressure reach preset maximum limits. Id. It will also trip the reactor when coolant pressure reaches a preset minimum value which is a function of coolant temperature. Id. Additionally, the reactor is also tripped by axial power imbalance, by ratios of neutron flux to reactor coolant flow that are too high for safe operation, or upon loss of power to the reactor protection system. Id.

76. See Ford, supra note 73, at 231. The core cooling systems are designed to totally submerge the reactor core in water. Id. If the cooling system malfunctions, the reactor core can overheat immensely, resulting in a "meltdown" in which the heat causes the uranium core to liquefy and breach the metal and concrete containment barriers, releasing quantities of radioactive materials into the environment. Id.


The term "precautionary evacuation" means an evacuation of the public within a specified area near a nuclear facility, or the transportation route in the case of an accident involving transportation of source material, special nuclear material, byproduct material, high-level radioactive waste, spent nuclear fuel, or transuranic waste to or from a production or utilization facility, if the evacuation is (1) the result of any event that is not classified as a nuclear incident but that poses imminent danger of bodily injury or property damage from the radiological properties of source material, special nuclear material, byproduct material, high-level radioactive waste, spent nuclear fuel, or transuranic waste, and causes an evacuation; and (2) initiated by an official of a State or a political subdivision of a State, who is authorized by State law to initiate such an evacuation and who reasonably determined that such an evacuation was necessary to protect the public health and safety.

instrumentation and human error.\textsuperscript{78}

In the aftermath of the Three Mile Island accident, shortcomings in nuclear plant safety systems and NRC safety procedures were uncovered.\textsuperscript{79} Consequently, the NRC increased safety inspections at other commercial nuclear power plants, stepped up enforcement of those regulations and promulgated emergency preparedness rules.\textsuperscript{80} Secret nuclear weapons production facilities have also received greater scrutiny after nuclear whistleblower complaints revealed inadequate safety standards.\textsuperscript{81} Moreover, there have been recent allegations of shortcomings in the safety of Navy nuclear reactors.\textsuperscript{82} However, these controversies are beyond the scope of this Comment.

\textbf{D. States' Interest in Promoting Nuclear Safety}

The "franchise to operate a public utility . . . is a special privilege which . . . may be granted or withheld at the pleasure of the State."\textsuperscript{83} Furthermore, every state has a strong interest in making electricity available at reasonable rates as well as protecting resi-

\begin{footnotesize}
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\item See Ford, supra note 73, at 230. First, a pressure relief valve opened to relieve excessive primary plant pressure caused by the overheating. Id. However, once opened, this relief valve stuck open, causing an uncontrolled loss of primary coolant. Id. Second, the Unit 2 control room did not indicate that this valve was stuck open. Id. Consequently, this valve remained open for more than two hours. Id. Finally, plant operators, believing the reactor to be adequately supplied with cooling water, errored in shutting off the emergency core cooling pumps. Id.
\item Id. at 231. A Presidential commission report disclosed errors ranging from improper installation of control room instruments so that they could not be read, to the NRC's lack of a comprehensive system to monitor the safety of U.S. reactors. Id.
\item See Tomlin & Hickey, supra note 39, at 394.
\item See Ahearne, Fixing the Nation's Nuclear-Weapons Plants, TECH. REV., July 1989, at 24. The Department of Energy ("DOE"), runs the nation's nuclear weapons production program. Id. Efforts to uncover problems with the DOE weapons complex began in the late 1970's, when Senator John Glenn received complaints about work safety practices at uranium enrichment plants in Ohio. Id. As a result of these complaints and the comprehensive investigation that ensued, a plutonium plant in Hanford, Washington was permanently closed and three tritium plants in Savannah River, South Carolina were also shut down due to operational and repair concerns. Id.
\item See Safety, Secrecy of Navy Reactors Stirs Controversy, The New London Day (Connecticut), Jan. 1, 1991, § A, at 1, col. 5. Former employees of the Navy's prestigious nuclear reactor program have accused the West Milton, N.Y. site of serious safety lapses and claim they were disciplined for their whistleblowing activities. Id. Their allegations have contributed to pressure in Washington, D.C. for wider scrutiny over the Navy's training and research centers. Id. In a written statement, officials of the Naval Reactors program stated, "[a]ll naval prototype reactors have engineered safeguards to help insure safe operation . . . . The stringent design requirements of naval reactor fuel, the conservative design of naval reactor plants, and the detailed training and qualification of naval reactor operators make the likelihood of a naval reactor accident extremely small." Id. at 16, col. 6.
\item Frost v. Corporation Comm'n, 278 U.S. 515, 534 (1934) (Brandeis, J., dissenting).
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...udents, wildlife and other natural resources from the effects of radiation exposure. This interest has long been recognized as one of the states’ established “police powers.” By 1959, twenty-nine states had passed legislation concerning nuclear energy and radiation safety. In the late 1970’s and early 1980’s, in a second wave of state legislation, several states passed laws extensively policing the commercial nuclear industry. Many of these state statutes explicitly referred to local health and safety concerns.

States have never been specifically excluded from regulating nuclear energy. Section 271 of the Atomic Energy Act of 1954 (“AEA”) stated that it was not to “... be construed to affect the authority or regulations of any Federal, State or local agency with respect to the generation, sale or transmission of electric power produced through the use of nuclear facilities licensed by the [Atomic Energy] Commission.” The legislative history of section 271 indicates that Congress intended the production of electricity by nuclear power plants to be subject to the same state authority as is the production of electricity by conventional power plants. In 1959, Congress amended the AEA, adding section 274. This amendment codified the procedure by which the Atomic Energy Commission (“AEC”) could transfer its regulatory authority over certain types of

84. See Central Hudson Gas & Electric Corp. v. Public Serv. Comm’n of New York, 447 U.S. 557, 569 (1980) (stating that “[t]he State’s concern that [electricity] rates be fair and efficient represents a clear and substantial governmental interest.”). Id.
85. See Maurer v. Hamilton, 309 U.S. 598 (1940). A unanimous Supreme Court upheld a state highway safety law which prohibited an activity that the Interstate Commerce Commission, pursuant to a federal statute, found to be safe. Id. The Court referred to the state’s interest in protecting human life. Id.
88. See, e.g., OR. REV. STAT. §§ 469.010-994 (1989). This Oregon statute declares that the intention of the state is to assert jurisdiction to the full extent of its constitutional ability. Id. Furthermore, it allows a state official to order the shutdown of a commercial nuclear utility without a prior hearing if he or she has “cause to believe that there is [a] clear and immediate danger to the public health and safety from continued operation of the plant or installation . . . .” OR. REV. STAT. § 469.550 (1989).
90. See Pacific Legal Found. v. State Energy Resources Conservation & Dev. Comm’n, 659 F.2d 903, 920 (9th Cir. 1981) (citing 100 CONG. REC. 12,015 (1954) (containing the statement of Sen. Hickenlooper)). “We take the position that electricity is electricity. Once it is produced it should be subject to the proper regulatory body, whether it be the Federal Power Commission in the case of interstate transmission, or State regulatory bodies if such exist, or municipal regulatory bodies.” Id.
radioactive material to the states. By this action, states were given the authority to regulate those materials “for the protection of the public health and safety from radiation hazards.” Moreover, Congress made clear that section 274 was not intended to curtail existing state authority outside the NRC’s jurisdiction, stating that it was not to “... be construed to affect the authority of any State or local agency to regulate activities for purposes other than protection against radiation hazards.”

III. Extent to Which Congress Has Preempted the Field of Nuclear Safety

A. Preemption Generally

Federal and state governments share the power to regulate the commercial nuclear industry. Occasionally, this joint authority creates conflict between the two as each attempts to address the economic, health and safety concerns prevalent in the nuclear energy field. When discord exists between the two legislative bodies, the issue of preemption arises. However, “we start with the assumption that the historic police powers of the States were not to be superseded by the Federal Act unless that was the clear and manifest purpose of Congress.”

The Supremacy Clause of the United States Constitution provides that the laws and treaties of the United States “... shall be the supreme Law of the Land....” Assuming the federal law is itself constitutional, state law may be preempted under the Supremacy Clause in three circumstances. First, Congress can ex-

93. The [Atomic Energy] Commission shall enter into an agreement under subsection (b) of this section with any State if (1) The Governor of that State certifies that the State has a program for the control of radiation hazards adequate to protect the public health and safety with respect to the materials within the State covered by the proposed agreement, and that the State desires to assume regulatory responsibility for such materials....
98. U.S. CONST. art. VI, cl. 2 provides in pertinent part:
This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be the supreme Law of the land; and the Judges in every state shall be bound thereby, any Thing in the Constitution of Laws of any State to the Contrary not withstanding.
U.S. CONST. art. VI, cl. 2.
plicitly define the extent to which its enactments preempt state law.\textsuperscript{97} In such cases, courts need only look to the statutory language.

Second, in the absence of express statutory language, state law is preempted if it attempts to regulate conduct in a field which Congress intended the federal government to exclusively occupy.\textsuperscript{98} Such an intent can be inferred if:

\begin{quote}
[a] scheme of federal regulation . . . [is] so pervasive as to make reasonable the inference that Congress left no room for the States to supplement it, . . . [or it] touch[es] a field in which the federal interest is so dominant that the federal system will be assumed to preclude enforcement of state laws on the same subject.\textsuperscript{99}
\end{quote}

However, the Congressional intent to preempt state law must be “clear and manifest”\textsuperscript{100} in areas which have “been traditionally occupied by the States.”\textsuperscript{101}

Finally, state law is preempted when it conflicts directly with federal law, or “stands as an obstacle to the accomplishment”\textsuperscript{102} of federal objectives.\textsuperscript{103} Consequently, the Supreme Court has held state laws to be preempted where it is impossible for a party to comply with both the federal and state requirements.\textsuperscript{104}

In all preemption cases, the court confines its analysis to the Congressional intent to preempt the state regulation at issue.\textsuperscript{105} This is accomplished by analyzing the wording of the statute as well as its legislative history.\textsuperscript{106} No preemption will be found where state law is only in general tension with federal goals.\textsuperscript{107}

\textbf{B. Congressional Regulation}

The commercial development of nuclear power over the past thirty-seven years has been facilitated by extensive federal regulation.\textsuperscript{108}

\begin{itemize}
\item \textsuperscript{98} See Tribe, supra note 97, at 481 (discussing implied preemption).
\item \textsuperscript{99} Rice, 331 U.S. at 230.
\item \textsuperscript{100} Id.
\item \textsuperscript{101} Jones v. Rath Packing Co., 430 U.S. 519, 525 (1977).
\item \textsuperscript{102} Hines v. Davidowitz, 312 U.S. 52, 67 (1941); see Maryland v. Louisiana, 451 U.S. 725, 747 (1981).
\item \textsuperscript{103} See Tribe, supra note 97, at 481 (discussing conflict preemption).
\item \textsuperscript{105} See Tribe, supra note 97, at 487-91.
\item \textsuperscript{106} Id.
\item \textsuperscript{107} Id.
\item \textsuperscript{108} See infra notes 110-35 and accompanying text.
\end{itemize}
The turning of swords into plowshares has symbolized the transformation of atomic power into a source of energy in American society. To facilitate this development the Federal Government relaxed its monopoly over fissionable materials and nuclear technology, and in its place, erected a complex scheme to promote the civilian development of nuclear energy, while seeking to safeguard the public and the environment from the unpredictable risks of a new technology. Early on, it was decided that the States would continue their traditional role in the regulation of electricity production. The interrelationship of federal and state authority in the nuclear energy field has not been simple; the federal regulatory structure has been frequently amended to optimize the partnership. 109

Prior to 1954, the federal government monopolized all use, control and ownership of nuclear technology. The Atomic Energy Act of 1954, 110 was passed to promote private sector involvement in the nuclear energy field. 111 The AEA opened the door to private construction, ownership and operation of commercial nuclear reactors under the strict supervision of the five-member Atomic Energy Commission. 112 The primary functions of the AEC were to encourage research and promote the development of nuclear power technology. 113 The AEC was given the exclusive authority to license the transfer, use and ownership of all radioactive materials in the United


It is the purpose of this chapter to . . . provide[e] for (a) a program of conducting, assisting, and fostering research and development in order to encourage maximum scientific and industrial progress; (b) a program for the dissemination of unclassified scientific and technical information . . . so as to encourage scientific and industrial progress; (c) a program for Government control of the possession, use, and production of atomic energy and special nuclear material, whether owned by the Government or others, so directed as to make the maximum contribution to the common defense and security and the national welfare, and to provide continued assurance of the Government’s ability to enter into and enforce agreements with nations or groups of nations for the control of special nuclear materials and atomic weapons; (d) a program to encourage widespread participation in the development and utilization of atomic energy for peaceful purposes to the maximum extent consistent with the common defense and security and with the health and safety of the public . . .

42 U.S.C. § 2013 (1988); see also H.R. Rep. No. 2181, 83d Cong. 2d Sess. 1-11 (1954). The national interest would be best served if the government encouraged the private sector to become involved in the development of atomic energy for peaceful purposes under a federal program of regulation and licensing. Id.

113. See TOMAIN & HICKEY, supra note 39, at 392.
States. However, the AEA mandated that the development of nuclear power for commercial purposes be restricted by national security, public health and safety concerns. With respect to these matters, no significant role was contemplated for the states. However, the AEA did allow existing state authority to continue to regulate the generation, transmission and sale of electricity that would be produced by the proposed commercial nuclear facilities.

In 1957, Congress indirectly affected the regulatory scope of both the federal and state governments with the passage of the Price-Anderson Act. This Act sought to stimulate private sector involvement in the incipient nuclear industry. The Price-Anderson Act amended the AEA by establishing a $560 million liability limit as a consequence of any one nuclear accident. Moreover, if aggregate damage claims exceeded $560 million, individual claimants were to be subject to proportional recovery limits. This amend-

116. See 42 U.S.C. § 2018 (1988); see also supra note 89 and accompanying text; see also Pacific Gas, 461 U.S. at 205.

Congress, in passing the 1954 Act and in subsequently amending it, intended that the Federal Government should regulate the radiological safety aspects involved in the construction and operation of a nuclear plant, but that the States retain their traditional responsibility in the field of regulating electrical utilities for determining questions of need, reliability, cost, and other related state concerns.

Id.; see also Note, State Regulation of Nuclear Power Production: Facing the Preemption Challenge from a New Perspective, 76 Nw. U.L. Rev. 134, 144 (1981).


The aggregate public liability for a single nuclear incident of persons indemnified, including such legal costs as are authorized to be paid . . . shall not exceed . . . (i) $500,000, together with the amount of financial protection required of the license; or (ii) if the amount of financial protection required of the licensee exceeds $60,000,000, $560,000,000 or the amount of financial protection required of the licensee, whichever amount is more.


Whenever the United States district court in the district where a nuclear incident occurs . . . determines . . . that public liability from a single nuclear incident may exceed the limit of liability . . . The [Atomic Energy] Commission or the Secretary, as appropriate, shall . . . submit to such district court a plan for the disposition of pending claims and for the distribution of remaining funds available. Such a plan shall include an allocation of appropriate amounts for personal injury claims, property damage claims, and possible latent injury claims which may not be discov-
ment further required the federal government to indemnify the commercial nuclear plant operator for most of that amount.\textsuperscript{121} However, since the Price-Anderson Act did not codify any federal substantive law on how to address these damage claims, state tort remedies for harm resulting from the operation of commercial nuclear facilities were left intact.\textsuperscript{122}

In 1959, Congress amended the Atomic Energy Act, adding section 274,\textsuperscript{123} to “clarify the respective responsibilities . . . of the States and the [federal government] with respect to the regulation of byproduct, source, and special nuclear materials.”\textsuperscript{124} This amendment set forth the procedure by which the AEC could transfer regulatory authority over certain types of radioactive material to the

\begin{itemize}
  \item[42 U.S.C. § 2210 (o) (1) (C) (1988)].
  \item[121. See 42 U.S.C § 2210 (c) (1988). “The Commission shall . . . agree to indemnify and hold harmless the licensee and other persons indemnified, as their interest may appear, from public liability arising from nuclear incidents which is in excess of the level of financial protection required of the licensee.” 42 U.S.C § 2210 (c) (1988); but see Tomlin & Hickey, supra note 39, at 393.
  \item[This amount consisted of all the private insurance that the utilities could raise at the time, which from 1957 to 1967 amounted to $60 million. The remaining $500 million was guaranteed by the federal government. Today, there is no federal contribution. Instead, licensees pay the entire insurance bill. Every ten years the Price-Anderson Act comes up for renewal. Under the 1975 amendments to the Act, industry is assessed $5 million per reactor in the event of an accident. There are presently 95 nuclear power reactors which together with available private insurance exceeds the $560 million contribution required by industry thus eliminating government participation.
  \item[Id. 122. See Silkwood v. Kerr-McGee Corp., 464 U.S. 238, 251-52 (1984) (quoting S. REP. No. 296, 85th Cong., 1st Sess. 9 (1957)). Since the rights of third parties who are injured are established by State law, there is no interference with the State law until there is a likelihood that the dangers exceed the amount of financial responsibility required together with the amount of the indemnity. At that point the Federal interference is limited to the prohibition of making payments through the State courts and to prorating the proceeds available.
  \item[It is the purpose of this section (1) to recognize the interests of the States in the peaceful uses of atomic energy; . . . (2) to recognize the need, and establish programs for, cooperation between the States and the [Atomic Energy] Commission with respect to control of radiation hazards associated with use of such materials; (3) to promote an orderly regulatory pattern between the Commission and State governments with respect to nuclear development and use and regulation of byproduct, source, and special nuclear materials . . . .]
  \item[42 U.S.C. § 2021 (a) (1988)].
\end{itemize}
states under specified conditions. \(^{125}\) Adopted state regulatory pro-
grams were required to be “coordinated and compatible” with those of the AEC. \(^{126}\) This amendment generally served to increase the
states’ role in policing the nuclear power industry. However, “Congress’ decision to prohibit the States from regulating [all] the safety aspects of nuclear development was premised on its belief that the [Atomic Energy] Commission was more qualified to determine what type of safety standards should be enacted in this complex area.” \(^{127}\)

Concern over the AEC’s dual role as both promoter and regulator of nuclear power led to Congressional action in the form of the Energy Reorganization Act of 1974 (“ERA”). \(^{128}\) The ERA abolished the AEC and transferred its regulatory and licensing authority to the new Nuclear Regulatory Commission. \(^{129}\) Congress expanded the NRC’s duties and responsibilities in order to closely supervise the commercial nuclear power industry. \(^{130}\) The NRC was created to ensure that public health and safety concerns were identified and addressed. \(^{131}\)

In 1978, Congress amended both the Atomic Energy Act \(^{132}\) and the Energy Reorganization Act. \(^{133}\) Among these amendments was section 210, \(^{134}\) which encouraged employees to report safety violations and protected whistleblowers against employer retaliation. \(^{135}\)

\(^{125}\) See 42 U.S.C. § 2021 (b) (1988) (allowing the AEC to transfer to states, regulatory authority over byproduct, source and special nuclear materials in amounts insufficient to form a critical mass, but prohibiting transfer of especially hazardous materials).


\(^{127}\) Silkwood, 464 U.S. at 250.


\(^{131}\) See Pacific Gas, 461 U.S. at 207.


\(^{133}\) 42 U.S.C. §§ 5810-5891 (1988); see supra note 2 and accompanying text.

\(^{134}\) 42 U.S.C. § 5851 (1988); see supra note 3 and accompanying text.

However, in spite of the numerous federal amendments, Congress left many areas of commercial nuclear energy open to state regulation.

IV. JUDICIAL PREEMPTION IN THE NUCLEAR FIELD

A. Supreme Court Decisions

As states recognized the potential environmental and safety problems associated with nuclear power, they attempted to regulate conduct in this area. Inevitably, some of these state laws collided with established federal legislation, resulting in preemptive challenges.136

Until the Supreme Court decided Pacific Gas & Electric Company v. State Energy Resources Conservation & Development Commission,137 the leading federal case in the area of nuclear preemption was Northern States Power Company v. Minnesota.138 Northern States Power Co. applied to the Minnesota Pollution Control Agency for a waste disposal permit for its Monticello Nuclear Power Plant.139 One was issued subject to conditions regulating the level of radioactive discharges as well as requirements for monitoring such releases.140 Since these state mandated conditions were more stringent than those imposed by the AEC, plaintiff Northern States sought sanctuary under the doctrine of federal preemption.141

The Court of Appeals for the Eighth Circuit concurred in establishing the principle of federal exclusivity in the radiation safety field.142 The court held that state regulations, which were more stringent than the federal laws governing the discharge of radioactive effluents, were preempted under the AEA.143 The Northern States

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136. See infra notes 137-206 and accompanying text (analyzing the case law preceding the English decision).
139. Id. at 1145. Northern was a Minnesota corporation engaged in the production and interstate sale of electricity. Id. at 1144.
140. Id. at 1145.
141. Id.
142. Id. at 1153-54. The issue in this case was whether the AEC had exclusive authority to regulate the radioactive waste releases from nuclear power plants so as to preclude Minnesota from exercising regulatory authority over the release of such discharges from the Monticello plant. Id.
143. Id. The court rejected Minnesota's argument that the state's traditional police authority to protect public health, safety and welfare empowered it to regulate radioactive dis-
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The court concluded that although Congress had not expressly preempted state regulation of radioactive emissions, it had established an extensive system of federal control over radiation hazards. Consequently, any state regulation with the purpose or effect of controlling radiation safety was preempted. The Supreme Court affirmed *Northern States* without opinion.

In *Pacific Gas*, the Supreme Court held that "the Federal Government has occupied the entire field of nuclear safety concerns, except the limited powers expressly ceded to the States." In this case, several utilities brought a declaratory judgment action to invalidate a California statute which imposed a moratorium on the certification of new commercial nuclear facilities. This temporary stoppage was designed to last until the NRC approved a permanent radioactive waste disposal plan for nuclear waste generated by these plants.

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144. *Id.* at 1147-53. The court added that if states were permitted to establish standards for radioactive discharges which were more stringent than those set by the federal government, they might utilize such authority to stifle the development of commercial nuclear power. *Id.* at 1154.

145. *Id.*

146. 405 U.S. 1035 (1972).

147. *Pacific Gas & Electric Co. v. State Energy Resources Conservation & Dev. Comm'n.*, 461 U.S. 190, 212 (1983). At issue was whether a California law which conditioned the construction of commercial nuclear plants upon findings by the State Energy Resources Conservation and Development Commission that adequate storage and disposal facilities existed for the nuclear waste, was preempted by the Atomic Energy Act. *Id.* at 194.

148. See *Warren-Alquist Act*, CAL. PUB. RES. CODE §§ 25000-25986 (West 1986). No nuclear fission thermal powerplant . . . shall be permitted land use in the state, or where applicable, be certified by the commission until both conditions (a) and (b) have been met: (a) The commission finds that there has been developed and that the United States through its authorized agency has approved and there exists a demonstrated technology or means for the disposal of high-level nuclear waste. (b) The commission has reported its findings and the reasons therefore pursuant to paragraph (a) to the Legislature. Such reports of findings shall be assigned to appropriate policy committees for review. The commission may proceed to certify nuclear fission thermal powerplants 100 legislative days after reporting its findings unless within those 100 legislative days either house of the Legislature adopts by a majority vote of its members a resolution disaffirming the findings of the commission made pursuant to paragraph (a).

149. See *CAL. PUB. RES. CODE* § 25524.2 (West 1986); see also *Pacific Gas*, 461 U.S. at 195 (footnote omitted). A nuclear reactor requires periodic refueling in which the "spent fuel" must be removed and replaced with fresh uranium. *Id.* This spent fuel is highly radioactive and must be carefully stored. *Id.* Normally, the fuel is stored submerged in a water pool at the reactor site. *Id.* For many years, it was assumed that this fuel would eventually be reprocessed. *Id.* Consequently, these storage pools were designed as short-term holding facilities with limited capacity. *Id.* The spent fuel has accumulated in these storage pools, creating the risk that nuclear reactors would have to be shut down since there is no permanent disposal method.
The California statute’s purpose was not to regulate the safety aspects of nuclear power, but rather to regulate its economics.\textsuperscript{150} California claimed that its nuclear plants would have to be shut down when their on-site storage facilities were filled. Accordingly, continued new plant construction would result in an economic risk since the cost and timing of a permanent waste disposal plan could not be reasonably estimated.\textsuperscript{151} The utilities challenged on the grounds that the AEA preempted the state moratorium. Although a unanimous Supreme Court upheld the California state law, it also wrote in its decision that only “the Federal Government should regulate the radiological safety aspects involved in the construction and operation of a nuclear plant . . . .”\textsuperscript{152} Nevertheless, the \textit{Pacific Gas} decision allowed states to continue to regulate commercial nuclear power, but only for non-safety reasons.\textsuperscript{153}

The following year, in \textit{Silkwood v. Kerr-McGee Corporation}, the Supreme Court addressed the issue of whether federal law preempts all state nuclear regulations.\textsuperscript{154} A closely divided Court reversed the court of appeals and held that a claim for punitive damages in a state tort action did not fall within the preempted field discussed in \textit{Pacific Gas}.\textsuperscript{155} The \textit{Silkwood} Court noted that, “[p]unitive damages have long been a part of traditional state tort law.”\textsuperscript{156} After reviewing the Atomic Energy Act of 1954 and its subsequent amendments, the Court concluded that “[i]t is difficult to believe that Congress would, without comment, remove all means of judicial recourse for those injured by illegal conduct.”\textsuperscript{157}

Karen Silkwood was a laboratory technician and union shop steward at a plutonium fuel rod manufacturing plant in Cimarron, Oklahoma.\textsuperscript{158} Silkwood and other union representatives met with available at present. \textit{Id.} This scenario could occur if there were insufficient room in the pool to store spent fuel or if there were not enough space to hold the entire fuel core when certain inspections or emergencies required unloading of the reactor. \textit{Id.} In recent years, this problem has taken on special urgency. \textit{Id.} Approximately 8,000 metric tons of spent nuclear fuel have already accumulated, with projections reaching 72,000 metric tons in the year 2000. \textit{Id.}

\begin{itemize}
\item \textsuperscript{150} \textit{See Pacific Gas}, 461 U.S. at 213.
\item \textsuperscript{151} \textit{Id.} at 213-14.
\item \textsuperscript{152} \textit{Id.} at 205.
\item \textsuperscript{153} \textit{Id.} at 207-208.
\item \textsuperscript{154} 464 U.S. 238, 248-58 (1984). The Court looked at whether a state-authorized punitive damages award arising out of the escape of plutonium from a federally licensed nuclear facility was preempted because it fell within the purview of the Atomic Energy Act. \textit{Id.} at 241.
\item \textsuperscript{155} \textit{Id.} at 258.
\item \textsuperscript{156} \textit{Id.} at 255.
\item \textsuperscript{157} \textit{Id.} at 251 (citing \textit{Construction Workers v. Laburnum Corp.}, 347 U.S. 656, 663-64 (1954)).
\item \textsuperscript{158} \textit{Id.} at 241. The plant fabricated plutonium fuel pins utilized in nuclear reactors for
\end{itemize}
AEC officials concerning alleged safety violations at the plant.\textsuperscript{189} Shortly thereafter, during a three-day period in November, 1974, Silkwood’s person and property were contaminated by plutonium from the Cimarron plant.\textsuperscript{190} Eight days after her initial contamination, Karen Silkwood died in an automobile accident.\textsuperscript{191}

The Silkwood Court established a new standard for preemption analysis of state damage awards. The Court wrote:

\begin{quote}
[P]re-emption should not be judged on the basis that the Federal Government has so completely occupied the field of safety that state remedies are foreclosed but on whether there is an irreconcilable conflict between the federal and state standards or whether the imposition of a state standard . . . would frustrate the objectives of the federal law.\textsuperscript{192}
\end{quote}

Simply stated, federal law preempts a state law only if it is impossible to comply with both laws.\textsuperscript{193} As a result of Pacific Gas and Silkwood, states were able to legally regulate significant portions of the commercial nuclear power industry.


\textsuperscript{160} Id. at 617-18. On November 5, 1974, Karen Silkwood became radioactively contaminated after working with plutonium through a “glove box.” Id. This box is designed to protect personnel from surface contamination by allowing the operator to handle radioactive material through sealed glove holes in the side of the box. Id. She was immediately decontaminated and monitors detected no further contamination at the end of her shift that day. Id. However, as a precautionary measure, urine and fecal samples were collected in order to check for possible internal contamination. Id. The next day, upon leaving the laboratory, Silkwood was again discovered to have been contaminated, even though she had not been working with plutonium. Id. Once again, she was decontaminated. Id. On November 7, Silkwood was monitored upon her arrival at the plant. Id. High levels of radioactive contamination were detected. Id. A subsequent investigation of Silkwood’s apartment revealed especially high levels of radioactive contamination in her bedroom, bathroom and kitchen. Id. The radiation levels in these areas were such that many of her personal belongings had to be destroyed. Id. Silkwood herself was sent to Los Alamos Scientific Laboratory to determine the extent of internal contamination. Id. Moreover, the urine and fecal samples taken on November 5, revealed the presence of insoluble plutonium, which cannot be excreted from the body. Id. This undisputed evidence indicated that Karen Silkwood’s samples had been deliberately “spiked” with plutonium by a person or persons unknown. Id.

\textsuperscript{161} Id. at 912; see The Silkwood Mystery, TIME Jan. 20, 1975, at 47-48. At the time of her death, Silkwood was driving to meet a New York Times newspaper reporter, supposedly with documents to substantiate her allegations of unsafe practices and procedures at the Kerr-McGee plant. Id. No such documents were discovered among her personal effects from the accident scene. Id.


\textsuperscript{163} Id.
B. Jurisdictional Conflicts

Prior to English v. General Electric Company, several lower federal courts had addressed the issue of whether section 210 of the Energy Reorganization Act preempted state jurisdiction over whistleblower suits. These courts were split, with some holding that nuclear whistleblowers retained state remedies despite section 210, while other courts held this section to be preemptive.

In Stokes v. Bechtel North American Power Corporation, the district court held that state actions based upon both contract and tort law were not preempted by Congress. Charles Stokes, a nuclear engineer at one of Bechtel’s plants, alleged that he was discharged in retaliation for refusing to suppress quality assurance information. Bechtel claimed that the wrongful discharge action was preempted by section 210.

The federal court, after reviewing the Pacific Gas and Silkwood decisions, stated that “[t]he crucial distinction . . . is between state regulation of radiological safety, foreclosed by federal law, and regulation of other aspects of nuclear power grounded in legitimate state policy or law.” The court characterized this suit as one of employer-employee relations and found that section 210 did not prohibit, but rather supplemented the state protections for nuclear whistleblowers.

Similarly, in Wheeler v. Caterpillar Tractor Company, the Illinois Supreme Court held that section 210 did not preempt state remedies for nuclear whistleblowers. William Wheeler brought a retaliatory discharge action against Caterpillar after he was alleg-

167. See infra notes 168-206 and accompanying text (discussing various jurisdictional conflicts prior to the English decision).
169. Id. at 735. Under the terms of his employment agreement, Stokes was supposed to identify and document quality assurance deficiencies in pipe support and pipe stress designs at the Diablo Canyon plant. Id.
170. 42 U.S.C. § 5851 (1988); see Stokes at 735. Bechtel contended that Stokes’ wrongful discharge claim arose under federal statutes regulating the field of nuclear power safety and, accordingly, was preempted by such statutes. Id.
173. 614 F. Supp. at 741. The court rejected Bechtel’s argument that the wrongful discharge claim was directed at the regulation of commercial nuclear power safety. Id.
174. Id. at 744-45.
176. Id. at 509-11, 485 N.E. 2d at 376-77.
edly fired for refusing to use an x-ray machine which contained radioactive cobalt. Plaintiff asserted that since cobalt 60 is a live source of radiation, NRC safety handling requirements mandate more extensive training than he was given. Wheeler further claimed that his subsequent discharge for refusing to work under those conditions “contravened clearly mandated public policy.” The state court agreed, stating “[t]he protection of the lives and property of citizens from the hazards of radioactive material is as important and fundamental as protecting them from crimes of violence, and by the enactment of [section 210], Congress has effectively declared a clearly mandated public policy to that effect.” The Illinois court concluded that this situation was analogous to Silkwood and further stated that “it was not the congressional intent to preempt the field.”

In Snow v. Bechtel Construction Incorporated, however, the federal court declined to follow the Stokes precedent. The Snow court found section 210 to be part of the federal scheme of nuclear safety regulation and therefore preemptive of state nuclear whistleblower claims. On October 25, 1984, James Snow informed Bechtel that the San Onofre Nuclear Generating Station was in violation of established NRC emergency evacuation requirements. Shortly thereafter, he sent a telegram to the NRC reporting these violations. In November, Snow was laid-off as part of Bechtel’s reduction in manpower. Snow claimed that he was terminated after complaining about the alleged evacuation violations. The court discounted the Stokes opinion because it had not considered the legislative history of section 210. According to that history, Congress intended section 210 to be the exclusive remedy for nuclear

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177. Id. at 505, 485 N.E. 2d at 374.
178. Id.
179. Id.
180. Id. at 511, 485 N.E. 2d at 377.
181. Id. at 509, 485 N.E. 2d at 376.
183. Id.
184. Id. at 1516.
185. Id.
186. Id. Snow was previously employed by Bechtel as a carpenter foreman at the plant. Id. On July 4, 1984, he informed his supervisor that some of Bechtel’s employees were taking drugs on the job. Id. Snow alleged that he was terminated on July 6, because of this whistleblowing. Id. However, plaintiff pursued the collective bargaining grievance procedure and was rehired as a journeyman carpenter on September 4. Id.
187. Id.
188. Id. at 1518.
whistleblowers.189

Chrisman v. Philips Industries, Incorporated, perpetuated the Snow decision.190 The Kansas Supreme Court concluded that a retaliatory discharge claim based upon the refusal to approve allegedly defective nuclear industrial products was preempted.191 Richard Chrisman, a quality assurance inspector, brought suit claiming that he was fired for intending to submit a workers' compensation claim.192 The court wrote, "there is massive federal legislation and regulation in the area of nuclear safety . . . . We hold that [section 210] is primarily a safety regulation, and that Congress has preempted the field."193

The northern California district court again had occasion to rule on the nuclear whistleblower preemption question in Gaballah v. PG & E.194 That court, after reviewing the conflicting Stokes and Snow decisions, concluded that section 210 of the ERA did not preempt a state court action based on state law.195 Plaintiff claimed that he was fired for having brought alleged discrepancies between the "as-built" seismic safety drawings and actual conditions at the Diablo Canyon Nuclear Power Plant to his employer's attention.196

The First Circuit Court of Appeals fortified the argument against preemption in Norris v. Lumberman's Mutual Casualty Company197 That court concluded that the whistleblower provision of the Energy Reorganization Act did not preempt state law regulations.198 Richard Norris, a regional manager, claimed that he was discharged after voicing concerns about the safety of certain reactor pressure vessels.199 The federal court commented, "[w]histle blowing

189. Id.
191. Id. at____, 751 P.2d at 145. The issue was whether a cause of action for retaliatory discharge existed on public policy grounds when an employee, who had been injured on the job and had expressed an intent to submit a workers' compensation claim, was persuaded by the employer to forego filing that claim and was then fired by the employer as a result of that previous intention. Id. at 141.
192. Id. at____, 751 P.2d at 141. Chrisman was employed by Philips for over six years at its plant in Paolo, Kansas. Id.
193. Id. at____, 751 P.2d at 145.
195. Id. at 991.
196. Id. at 989. Gaballah further alleged that seismic safety at Diablo Canyon was a matter of "extreme public policy." Id.
198. Id. at 1151.
199. Id. at 1145. From 1976 until his discharge in 1987, Norris was employed by Lumbermen as the Northeast Regional Manager. Id. In April, 1985, Norris investigated a complaint regarding reactor pressure vessels at the Vogtle Nuclear Power Station in Georgia and
is not directly concerned with safety standards, only the deviation from or the flouting of them. There is no good reason for barring state remedies to whistleblowers... We hold that there is no conflict between state law actions for wrongful discharge and [section 210].200

Most recently, in *Masters v. Daniel International Corporation*, the Tenth Circuit Court of Appeals held section 210 to be preemptive of any state remedies.201 On February 2, 1984, Ron Masters notified the NRC of safety related concerns about work he was doing at the Wolf Creek Nuclear Generating Station in Kansas.202 Ultimately, the subsequent NRC investigation substantiated Masters' complaint.203 However, he was terminated by Daniel for allegedly being a whistleblower.204 Masters did not file a section 210 claim with the Department of Labor but, rather, brought this retaliatory discharge action.205 Relying upon the *Pacific Gas* decision, the court determined that "... Section 210 of the Energy Reorganization Act ... preempts any state law claim for wrongful termination for reporting safety violations under the Act."206

C. *The English Decision*

In view of the widespread jurisdictional conflicts concerning section 210207 of the Energy Reorganization Act,208 the Supreme Court,

concluded that a prior Lumbermen inspector had been negligent. *Id.* His supervisor requested that because of a then pending litigation involving these vessels, that Norris have any reference to the substandard inspection deleted. *Id.* Norris objected, but he eventually complied. *Id.* In June, 1986, Norris investigated a former employee who had worked at the Seabrook Nuclear Power Plant and discovered problems that he felt warranted a full investigation. *Id.* His supervisor indicated that such an investigation would interfere with completion of a Seabrook report to the NRC. *Id.* In December, 1986, Lumbermen revised its inspection standards in such a way so as to eliminate a verification technique which would have identified the defective pressure vessel at Vogle. *Id.* Norris objected to the revision, but took no further action. *Id.* In March, 1987, PSE&G hired Lumbermen to conduct an audit of its Salem Nuclear Power Plant in New Jersey. *Id.* Norris conducted the audit and shortly thereafter, Lumbermen's Internal Security Division investigated his activities there. *Id.* It concluded that Norris' actions constituted a conflict of interest and resulted in Norris' personal financial gain. *Id.* Lumbermen did not inform Norris or offer him an opportunity to respond to the allegations. *Id.* In June, 1987, Lumbermen fired Norris. *Id.*

200. *Id.* at 1151.
201. 895 F.2d 1295 (10th Cir. 1990).
202. *Id.* at 1296.
203. *Id.*
204. *Id.*
205. *Id.*
206. *Id.*
in English v. General Electric Company, granted certiorari to resolve the nuclear safety preemption dispute. At issue was whether petitioner's state tort claim was so related to the "radiological safety aspects involved in the . . . operation of a nuclear [facility]," that it fell within the preempted field.

Vera M. English, a laboratory technician at General Electric's ("GE") Castle Hayne nuclear fuel plant, complained to both GE management and the NRC that the plant routinely violated federal safety regulations. These abuses included her co-workers' failure to clean up radioactive laboratory spills. Frustrated by GE's continued inaction, English, on one occasion, deliberately failed to clean up a radioactive spill. Instead, she surrounded the contaminated area in red tape and several days later notified her supervisor of the still untouched area. General Electric charged English with knowingly failing to clean up a radioactive spill and temporarily reassigned her. Ultimately, Vera English was fired.

210. Id. at __, 110 S. Ct. at 2278 (quoting Pacific Gas, 461 U.S. at 205).
211. Id.
212. See English v. General Electric Co., 683 F. Supp. 1006, 1008 (E.D.N.C. 1988), 683 F.2d 22 (4th Cir. 1989), rev'd, 496 U.S. __, 110 S. Ct. 2270 (1990). From November 13, 1972 until March 15, 1984, English was employed as a radiation laboratory technician in the Chemical Metallurgical Laboratory ("Chemet Lab") in GE's Nuclear Fuel Manufacturing Department ("NFMD") at Wilmington, North Carolina. Id. At the NFMD, uranium is utilized to produce nuclear fuel. Id. On February 13, 1984, English reported to the NRC that many safety hazards and illegal practices were present in the Chemet Lab, and that corrective action had not been taken, even though GE had been made aware by her of similar hazards and practices in the lab. Id. On February 24, 1984, Vera English informed the NFMD Quality Assurance Manager of her concerns. Id.
213. Id. at 1008. "[D]uring the period of March 5-9, 1984, plaintiff spent considerable work time cleaning up radiation contamination at and around her work station, apparently left there by workers on preceding shifts." Id.
214. Id.

On March 5, plaintiff asked a "Rad Safety" man (especially trained personnel who, using special instruments, detect uranium contamination) to check out her work area to see whether he would discover the pile of contaminated nuclear material she had collected and swept to the rear of her work table. The man declared plaintiff's area free of contamination.

215. Id. "Upon beginning her shift on March 12, 1984, English showed her supervisor the marked-off areas of contamination, areas which were undisturbed by interim shift workers. Plaintiff also informed her supervisor of the Rad Safety man's failure to detect contamination on her work bench on March 5." Id.

216. Id. "In a letter dated March 15, 1984, GE charged plaintiff with several violations of GE and/or NRC requirements, including . . . failure to clean up contamination, knowing it existed . . . ." Id. GE reassigned her to the Central Stores Warehouse. Id. at 1009.

217. Id. at 1009.

On April 30, 1984, GE's management informed English that she would have to
English responded by filing a complaint with the Secretary of Labor, alleging that GE's actions violated section 210 (a) of the ERA, which makes it unlawful for a nuclear employer to retaliate against an employee for reporting safety violations.218 The Secretary dismissed the complaint as untimely under the thirty-day limitations period provided by the statute.219 English then filed a diversity suit in district court, raising state law claims for wrongful discharge220 and intentional infliction of emotional distress,221 seeking compensatory and punitive damages from General Electric.222 The district court dismissed the actions on the grounds that they conflicted with section 210 and were therefore preempted.223 Vera English appealed the district court's order dismissing her complaint for intentional in-

[bid" for a position in the NFMD, other than in the Chemet Lab or other controlled area, and if no position was available within ninety days she would be placed on a "lack of available work" status . . . . [On] July 30, 1984, having obtained no other position, GE fired English.

Id. 218. 42 U.S.C. § 5851 (a) (1988); see English, 683 F. Supp. at 1010; see also supra notes 3-4 and accompanying text.

219. See English, 496 U.S. at—, 110 S. Ct. at 2274; see 42 U.S.C. § 5851 (b) (1988). Any employee who believes that he has been discharged or otherwise discriminated against by any person in violation of subsection (a) of this section may, within thirty days after such violation occurs, file . . . a complaint with the Secretary of Labor . . . alleging such discharge or discrimination.


220. See English, 683 F. Supp. at 1009 (quoting plaintiff's complaint at 41-42). "In . . . the complaint plaintiff alleges her discharge by GE was wrongful and 'in violation of the strong public policies embodied in the laws of the United States, which encourage and require safe operation of nuclear facilities and require workers to report potential violations of NRC regulations.'"

Id.

221. Id. at 1017.

[A]cts on the part of GE's management were intended and did in fact cause plaintiff to suffer severe emotional distress. With respect to "extreme and outrageous" conduct plaintiff alleges that GE's management (1) removed her from her job in the Chemet Lab under guard as if she were a criminal, exposing her to contempt and ridicule; (2) assigned her to a degrading "make work" job; (3) derided her as paranoid; (4) barred her from employment in controlled areas; (5) subjected her to constant surveillance in the workplace; (6) isolated her from fellow workers and did not even permit her to eat in the company lunchroom with fellow workers; and (7) conspired to fraudulently charge her with violations of safety and criminal statutes.

Id.

222. Id. at 1007. Plaintiff English sought $1,328,645 in compensatory damages and five percent of the net worth of defendant General Electric (approximately $2.3 billion) in punitive damages. Id.

223. Id. at 1012 (citing DeFord v. Secretary of Labor, 700 F.2d 281 (6th Cir. 1983)). "The court believes Section 210 provides plaintiff with a remedy for both of her causes of action. Her claim for wrongful discharge clearly falls within the employer conduct defined and prohibited by Section 210 . . . [and] plaintiff would be compensated for any emotional damages which she may have suffered." Id.
fliction of emotional distress. The Fourth Circuit Court of Appeals affirmed and certiorari was granted.

A unanimous Supreme Court held that English’s law claim for intentional infliction of emotional distress was not preempted by federal law. “[I]t is clear that the state tort law at issue here is not motivated by safety concerns . . . .” Moreover, the English Court set forth a new preemption standard. “[F]or a state law to fall within the pre-empted zone, it must have some direct and substantial effect on the decisions made by those who build or operate nuclear facilities concerning radiological safety levels.” English’s claim for punitive damages was unequivocally legitimized as well. Justice Blackmun wrote that “[section] 210 (d) authorizes a district court to award exemplary damages in enforcement proceedings brought by the Secretary [of Labor] . . . [and therefore] we cannot conclude that Congress intended to pre-empt all state actions that permit the recovery of exemplary damages.”

V. IMPACT OF THE English DECISION

Section 210 of the ERA was patterned after whistleblower protection clauses contained in the Clean Air Act, (hereinafter “CAA”); the Federal Water Pollution Control Act, (hereinafter “FWPCA”); and the Federal Mine Health and Safety Act, (hereinafter “FMHSA”). Moreover, two of these acts have statutory

224. See English v. General Electric Co., 871 F.2d 22 (4th Cir. 1989), rev’d, 496 U.S. ___ , 110 S. Ct. 2270 (1990). “In this diversity action, Vera M. English appeals the district court’s order dismissing her complaint on the ground that her state tort claim was preempted by federal law.” Id.

225. Id. at 23. “[W]e conclude that the lower court correctly determined that English stated a claim but that the claim was preempted by the ERA’s ‘whistleblower’ provisions . . . . We therefore affirm the order dismissing the complaint for the reasons expressed by the district court.” Id.

226. See English, 496 U.S. at___ , 110 S. Ct. at 2281. “We conclude that petitioner’s claim for intentional infliction of emotional distress does not fall within the pre-empted field of nuclear safety as that field has been defined in prior cases. Nor does it conflict with any particular aspect of [section] 210.” Id.

227. Id. at___ , 110 S. Ct. at 2278.

228. Id. at___ , 110 S. Ct. at 2278 (emphasis added).

229. See supra note 5 (quoting § 210 (d)).


This amendment is substantially identical to provisions in the Clean Air Act and the Federal Water Pollution Control Act. The legislative history of those acts indicated that such provisions were patterned after the National Labor Management Act and
sisters. The CAA contains identical whistleblower provisions to the Safe Drinking Water Act 234 (hereinafter "SDWA") and the Toxic Substances Control Act 235 (hereinafter "TSCA"). Furthermore, the Solid Waste Disposal Act 236 (hereinafter "SWDA") and the Superfund 237 contain whistleblower language identical to the FMHSA.

Six of these seven employee protection statutes pertain to environmental concerns. 238 The CAA concedes that growth in the amount and complexity of air pollution has occurred due to urbanization, industrial development and increasing automobile use, resulting in public health and welfare deterioration. 239 Consequently, the Act proposes to protect against such pollution by monitoring air quality in the workplace. 240 Moreover, the CAA, in statutory language identical to section 210, prohibits any type of employment retaliation against air pollution whistleblowers. 241

The SWDA encompasses utilities supplying water. 242 The Act promulgates maximum contamination levels 243 as well as mandating treatment techniques 244 and prohibiting the use of lead piping. 245

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238. The statute excluded is the Federal Mine Health and Safety Act which concerns coal miner safety.
244. See 42 U.S.C. § 300 j-3 (b) (1988).
The SWDA's discrimination prohibition, protecting complaints made by water facility workers, is identical to that of the CAA.246

Workers are exposed to many chemicals which may pose significant health risks.247 Accordingly, the TSCA regulates such hazardous substances and further requires employers to maintain records on their use.248 Workers who highlight employer deficiencies are protected by a sister provision to the CAA.249

The objective of the FWPCA is to restore and maintain the chemical, physical and biological integrity of American waters.250 In keeping with this aim, the Act sets forth comprehensive programs for water pollution control.251 Any factory or business which discharges wastes to a stream, river, lake or ocean is subject to FWPCA regulations.252 Consequently, any employee who discloses employer water pollution violations is also protected from retaliatory action.253

Increases in population and economic growth led to the enactment of the SWDA.254 The objective of this Act is to institute an environmentally safe waste disposal program and promote energy production from solid wastes.255 American employers are prohibited from open dumping on land and further restricted on how they dispose of petroleum base materials.256 An identical whistleblower provision to the FWPCA protects employee acknowledgement of such practices.257

Superfund empowers the federal government to quickly respond
to hazardous waste disposal concerns.\textsuperscript{258} Cleanup costs are borne by those American companies responsible for the environmental damage.\textsuperscript{259} The statute imposes fines and penalties on employers who fail to report improprieties\textsuperscript{260} and protects worker allegations of such violations in language identical to the FWPCA.\textsuperscript{261}

The FMHSA concerns coal miner safety.\textsuperscript{262} The Act codifies mandatory health and safety standards to improve miner working conditions and prevent serious physical harm or death.\textsuperscript{263} Furthermore, mine operators are responsible for implementing such standards.\textsuperscript{264} Consequently, retaliatory employer actions in response to miner safety concerns are prohibited by the FMHSA.\textsuperscript{265}

The impact of the \textit{English} decision\textsuperscript{266} will undoubtedly be felt in all areas of American manufacturing and business since none of these eight statutes would prevent an employee from bringing a state law tort claim.\textsuperscript{267} Currently, the Labor Department records only a handful of whistleblower complaints in non-nuclear industries each year, but the numbers are increasing.\textsuperscript{268} However, the amount of whistleblower complaints will continue to increase as American workers become more knowledgeable about these laws.\textsuperscript{269} The \textit{English} decision changes the odds for employees everywhere who find themselves in the unenviable position of being forced to cover up

\begin{itemize}
\item \textsuperscript{258} See 42 U.S.C. § 9604 (1988).
\item \textsuperscript{259} See 42 U.S.C. § 9607 (1988).
\item \textsuperscript{260} See 42 U.S.C. § 9603 (b) (1988).
\item \textsuperscript{261} See 42 U.S.C. § 9610 (1988); see also supra note 253.
\item \textsuperscript{262} See 30 U.S.C. § 801 (1988).
\item \textsuperscript{263} See 30 U.S.C. § 811 (1988).
\item \textsuperscript{264} See 30 U.S.C. § 801 (1988).
\item \textsuperscript{265} See 30 U.S.C. § 815 (c) (1988).
\end{itemize}

No person shall discharge or in any manner discriminate against or cause to be discharged or cause discrimination against or otherwise interfere with the exercise of the statutory rights of any miner, representative of [the] miners or applicant for employment in any coal or other mine subject to this chapter . . . .

\begin{itemize}
\item \textsuperscript{266} 496 U.S., 110 S. Ct. 2270 (1990).
\item \textsuperscript{267} The Energy Reorganization Act is included among these eight statutes; see supra notes 230-65 and accompanying text.
\item \textsuperscript{268} See Lavelle, \textit{Court Lights Way to Big Awards: Nuke Whistleblowers Win}, \textit{The Nat'l L.J.}, Jul. 9, 1990, at 3. In comparison, approximately 100 nuclear industry workers a year charge that they have suffered retaliation for pointing out illegal activities by their bosses. Id. The numbers have increased steadily from only a few cases reported annually in the late 1970's and early 1980's. Id.
\item \textsuperscript{269} Id.
\end{itemize}
safety concerns or lose their jobs.\textsuperscript{270}

VI. CONCLUSION

Both the federal and state governments have long recognized the importance of nuclear safety.\textsuperscript{271} Consequently, each has enacted statutory protections designed to achieve this end. However, section 210 of the ERA represents a Congressional intent to protect nuclear whistleblowers, not to promote safety.\textsuperscript{272} \\textit{English v. General Electric Company}\textsuperscript{273} affirmed this intent and continued the Supreme Court's preemption law trend in favor of upholding these state regulations.\textsuperscript{274} The \textit{English} decision provides states with broad statutory authority in the area of tort remedies. Allowing whistleblowers to proceed in state court indirectly promotes nuclear safety by subjecting employers to the threat of substantial jury awards if they retaliate against employees. The economic aspect of state law claims may induce nuclear employers to investigate worker complaints rather than simply discharging employees. Moreover, these remedies are no longer constrained to simply compensatory damages. Punitive damages now represent a vital new economic weapon to combat retaliatory nuclear employers.\textsuperscript{275}

The impact of the landmark \textit{English} decision will be felt in all areas of American industry and foster prompt employer response to whistleblower complaints.\textsuperscript{276} The prospect of compensatory and punitive damages for employee injuries sustained as a result of discriminatory practices will undoubtedly affect American employers' primary decisions concerning workplace safety. The viability of whistleblower protection laws depends on both preventing retaliatory conduct by employers and punishing those employers who choose to retaliate against whistleblowers for their actions.

\textit{Thomas Michael Rittweger}

\textsuperscript{270} Id. "[T]he unanimity of the [Supreme] Court sends a strong signal that the justices will not allow federal pre-emption to stand in the way of whistleblowers in any industry . . . ." \textit{Id.}

\textsuperscript{271} See supra notes 83-94, 108-35 and accompanying text.


\textsuperscript{274} See supra notes 137-63 and accompanying text.

\textsuperscript{275} See supra note 229 and accompanying text.

\textsuperscript{276} See supra notes 230-70 and accompanying text.