Who Should Decide Whether Nuclear Reactors Are Safe?

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Editor's Note: This article originally appeared as Chapter Thirteen in the book The Accident Hazards of Nuclear Power Plants, *University of Massachusetts Press, Amherst, 1976. The first paragraph has been slightly abridged by the editors. With the renewed interest in utilizing nuclear power and the U.S. federal government's efforts to make licensing easier, it is just as important now as when it first appeared. Printed with permission of the author.*

This chapter poses the question, Who should decide whether nuclear reactors are safe?

The federal government, namely, Congress, has assumed the authority to promote nuclear energy by the passage of the Atomic Energy Act of 1954 and its subsequent amendments, including the Energy Reorganization Act of 1974, thereby making the basic judgment that nuclear reactors are safe, or can be made safe in a practical way.[1] By and under these acts, an elaborate administrative structure has been established for assessing the hazards of reactors and for deciding the safety issues and research needs. This structure includes the Nuclear Regulatory Commission, the Advisory Committee on Reactor Safeguards, the Atomic Safety and Licensing Board, and the Joint Committee on Atomic Energy of the Congress. But will this system of decision-making best ensure our safety and well-being? Can we trust that this system will lead to a sound decision? Or should the basic decision of safety not be left to the experts of the nuclear agencies and laboratories, or to the Joint Committee, or even to Congress? Should the basic decisions instead be referred to the States, which are closer to the people, or to the people themselves? This author contends that it is essential that these questions be taken up and, further, that an appeal be made to the fundamental constitutional principles of the land, for reasons which will be given next.

As one can appreciate from the analysis of reactor accident hazards given in the preceding chapters, a determination of the safety of nuclear reactors will depend primarily on the subjective judgments and personal philosophies of the particular set of individuals who will hold the power to decide the reactor safety issue. Briefly, the subjective elements include: the acceptability of unverified theory for predicting the course of postulated accidents; the rejection of the experimental philosophy; the subjective judgments factored into the theories of reactor explosion accidents; the assumed levels of acceptable radiation exposure to the population following an accident, which set the contamination limits for estimating possible accident consequences; the likelihood of accidents; the need to calculate the force and potential consequences of the worst possible accidents; and the practicality, safety, and value of integral reactor destructive experiments.* To show that a theory for predicting the course of possible accidents has not been verified experimentally, and that disastrous accidents are conceivable, would not necessarily persuade the decision makers to postpone the development of nuclear energy, or to abandon it, if these persons hold the view, as does the U.S. Nuclear Regulatory Commission, for example, that the theory is basically adequate and that the likelihood of serious accident is small enough so that the benefits of nuclear power warrant the risks.[2] Presently, these reactor safety judgments are left largely to the experts in the federal government, who are necessarily nuclear engineers and scientists and who thus have a natural vested interest in sustaining nuclear power, though they try, of course, to develop technological solutions to safety problems, mainly accident preventive measures. This vested interest will naturally influence the judgments of the federal regulatory agencies. Indeed, the Atomic Energy Act mandates to these agencies that nuclear energy be developed "so as to make the maximum contribution to the general welfare." Clearly, therefore, a judgment on the safety of the people relative to nuclear energy will depend on who decides.

Intertwined with this question of safety is the question of necessity: does our society need nuclear energy? Here again, human value judgments will surely control the answer. Though not the subject of analysis in this book, the economic and security considerations that will factor in a judgment on the necessity of nuclear energy will obviously depend on subjective assessments of the economic risks of nuclear energy, on the way of life society may desire or find necessary for ecological and economic reasons, and on the desired level of national security, which may or may not

* Editor's Note: Such experiments would test a complete operating reactor by pushing it past its failure point to study the results, as opposed to testing only components or subsystems for saftey limits. Full scale intergral tests require the whole system tested be full size.

require civilian nuclear energy, depending on personal judgment. There are also the health hazards and environmental impact of using fossil fuels to consider; nuclear energy could avoid these risks, at least for the power-plant phase of energy production. It is not the purpose of this present analysis to delve into these "benefit" considerations, except to say that surely an appraisal of the benefits or necessity of nuclear energy will depend heavily on how the risks of reactor accidents are judged. (There are other hazards of nuclear energy, which have not been examined in the present analysis, such as radioactive waste seepage, and theft of nuclear fuel by terrorists for use in fashioning crude atomic bombs. Of course, such considerations will also figure in the risk-benefit judgment.)

It is rather obvious in light of the value of nuclear power as an energy resource and of the hazards and countering safety measures, which are difficult to assess, that the nuclear reactor safety issue is one of the most profound and difficult decisions on human values facing society. It would be both wise and appropriate at this critical juncture, therefore, to reflect on the fundamental, *constitutional* principles of the land that bear on this issue, to determine where the People, by their constitutions, have vested the authority for resolving it. For in a way of thinking, our state and federal constitutions were established to ensure that society make sound human value judgments by carefully prescribing the powers of government in regard to *who* shall make *what* kinds of value judgments. This follows from the Declaration of Independence, which sets forth the fundamental axiom on which the constitutions were founded, to wit:

> *Governments are instituted among Men, deriving their just powers from the consent of the governed,— That...it is the Right of the People...to institute new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their Safety and Happiness.*

This political axiom finds expression in the Constitution of the United States—the supreme Law of the Land—in the form of the Tenth Amendment:

> *The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.*

From the above principles, we can and must assume that the method implied by the present Constitution for resolving the nuclear safety issue is the wisest and only proper method, until and if the Constitution is changed.

This author has pursued this constitutional question in a rigorous study of constitutional law and history and would like to offer his interpretation of the Constitution in this regard. It is his opinion that the nuclear program is unconstitutional. Specifically, it is contended that the United States Constitution does not delegate to the federal government (Congress) powers which can be reasonably construed as authority to promote and regulate civilian nuclear power plants—namely, powers to spend money from the treasury to develop and subsidize nuclear reactors; to regulate their operation and location, and to preempt any laws of the states that would require more stringent regulations or prohibition; and to grant the nuclear industry immunity from liability in the event of a severe reactor accident, as has been done by the Price-Anderson amendment to the Atomic Energy Act.[3]

The foregoing interpretation of the Constitution, if correct, would answer immediately the question of who should decide the nuclear safety issue, and by what process. For the answer would follow from Article V of the Constitution, which defines the process for amending the Constitution. Applying Article V, Congress would have to review the safety of nuclear reactors; and if Congress should conclude that nuclear energy is safe and that the federal nuclear program should continue, then it would have to ask the People for the authority to promote and regulate nuclear energy, or some broader authority, by proposing a constitutional amendment to the states. The states by considering an amendment proposition would then make the basic human value judgment as to the safety and environmental risks of nuclear reactors—unless Congress should repeal the nuclear program following its review.

Amendments may be ratified either by the legislatures of the states or by state conventions.[4] The latter mode may be preferable in that the people would elect delegates specifically selected for the purpose of deciding the profound nuclear safety issue. In either case, ratification by three-fourths of the states would be necessary for passage of an amendment, before the federal government could continue with its civilian nuclear energy program.

We can see that if the nuclear program were judged unconstitutional the question of whether the present administrative decision-making structure within the federal government is optimum or adequate to judge the safety issue would become moot, as the basic decision on nuclear safety would have to be made by a wholly different process, outside the administrative structure, designed to effect a closer consultation with and a thorough review by the People. Included among the People, incidentally, is the scientific community at large, whose attention would be secured by this decision process and who would surely contribute to the making of a sound public decision, not only by reviewing analyses of reactor safety but by taking up the fundamental issue of the experimental philosophy—the need for full-scale reactor testing—and giving it a

thorough consideration. These are the reasons that the constitutional inquiry is fundamentally important and must be taken up.

A brief legal argument in support of the foregoing opinion on the Constitution is offered below, to show that there is a serious question of the constitutionality of the federal civilian nuclear program. It is included in this treatise on reactor accident hazards, rather than in a separate work, because, as we shall see, the specific legal assumptions being challenged are so commonly accepted, and have such far-reaching implications, that to merely question them without supporting argument might be met with indifference. But unless the constitutional question is taken up, the nation stands the risk of not making a sound decision on nuclear safety, because the field of inquiry into *who should decide* will have been limited.

In addition, since the safety of nuclear reactors is as much a question of *who decides* as it is a question of the scientific uncertainties and accident possibilities and probabilities, it is important for those who take the time to learn and grasp the subjective aspects of assessing the accident hazards to consider the importance of a constitutional inquiry as well and, by examining the legal argument below, to appraise the validity of the constitutional question being raised. Those who comprehend the full, subjective character of nuclear safety and who at the same time comprehend the constitutional uncertainty may better appreciate the need to take a broad view of the question of who should decide, instead of restricting it to the federal administrative structure.

And since time is of the essence—because of the risks of accidents that already exist and because the construction of new reactors has been accelerating—it is felt that both the *hazards* and the *decision process* should be considered urgently, if we are to ensure a sound public decision, which is, after all, what we all are after.

For the foregoing reasons, the following brief legal argument is offered.

Constitutional Analysis and Argument

We begin by reviewing the powers of Congress. These are basically specified in Article I, section 8, of the U.S. Constitution:

> *The Congress shall have Power To lay and collect Taxes, Duties, Imposts and Excises, to pay the Debts and provide for the common Defence and general Welfare of the United States; but all Duties, Imposts and Excises shall be uniform throughout the United States;*
> *To borrow Money on the credit of the United States;*
> *To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes;...*
> *To coin Money, regulate the Value thereof, and of foreign Coin, and fix the Standard of Weights and Measures;...*
> *To establish Post Offices and Post Roads;*
> *To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries;...*
> *To declare War, grant Letters of Marque and Reprisal, and make Rules concerning Captures on Land and Water;*
> *To raise and support Armies, but no Appropriation of Money to that Use shall be for a longer Term than two Years;*
> *To provide and maintain a Navy;...*
> *To provide for calling forth the Militia to execute the Laws of the Union, suppress Insurrections and repel Invasions;...*
> *To exercise exclusive Legislation in all Cases whatsoever, over...the Seat of the Government of the United States, and to exercise like Authority over...Arsenals, dock-Yards, and other needful Buildings;—And*
> *To make all Laws which shall be necessary and proper for carrying into Execution the foregoing Powers, and all other Powers vested by this Constitution in the Government of the United States, or in any Department or Officer thereof.*

A review of the Atomic Energy Act and its legislative history[5] reveals that the civilian nuclear power program is based on the express assumption that Congress has the indefinite power *to provide for the general welfare* and the implicit assumption that Congress has a substantive power to promote and regulate manufactures, that is, the manufacturing of electricity by nuclear means. These assumptions are allegedly grounded on the *taxation* clause, particularly its common-defense and general-welfare subclause [hereafter referred to as the *welfare clause*, and on the *commerce clause*, which are the first and third clauses listed above. To show that this is the case, we need only refer to chapter 1 of the Atomic Energy Act, which asserts the "Findings" of Congress:

> *...the processing and utilization [power plants] of...nuclear [fuel] material affect interstate and foreign commerce and must be regulated in the national interest...and in order to provide for the common defense and security and to protect the health and safety of the public....*
> *Funds of the United States may be provided for the development and use of atomic energy under conditions which will provide for the common defense and security and promote the general welfare.*
> *In order to protect the public and to encourage the development of the atomic energy industry, in the*

interest of the general welfare and of the common defense and security, the United States may make funds available for a portion of the damages suffered by the public from nuclear incidents, and may limit the liability of those persons liable for such losses.

However, the Congress simply claimed such powers without offering any historical or legal analysis. It is contended that the *welfare clause* and *commerce clause* confer no such powers. We shall examine first the welfare clause.

Clearly, a power to provide for the general welfare is *indefinite* and therefore is virtually an unlimited power, depending on the opinion of Congress as to what is needed for the general welfare; whereas the powers enumerated in Article I, Section 8, are *specific*. However, since the alleged power to provide for the common defense and general welfare would include the specific powers by implication, the latter would be superfluous. It seems contradictory that the Constitution should go to great lengths to specify particular powers, only to make them superfluous by a sweeping power to provide for the general welfare. And why should such a paramount, sweeping power be defined in a manner that appears, grammatically, to be only a qualification of the power to tax, as indicated by the system of punctuation and capitalization, which relegates the welfare clause to second status at best. It would have to be admitted that there is a possibility that the welfare clause is only a qualification of the power to tax, not a grant of power in itself, such as an indefinite power to spend money for the "general welfare." Also, nuclear power plants should be considered an activity of *manufacture*, not of *commerce*; so that there would be no power stemming from the commerce clause to regulate nuclear plants, much less to promote their development.

Since the Constitution is subject to interpretation, it is necessary to settle on the proper method of interpreting written laws—the Constitution being the fundamental law. Said Blackstone, whose 1765 *Commentaries on the Laws of England* was a fundamental reference on the rudiments of law for our Founding Fathers,[6] "The fairest and most rational method to interpret the will of the legislator is by exploring his intentions at the time when the law was made, by *signs* the most natural and probable."[7] The signs include the *context* of the words in the law, and the *reason* and *spirit* of the law. It is necessary, therefore, that we explore the recorded intentions of the makers of the Constitution. These will be found mainly in the records of the Federal Constitutional Convention [8] and the States' conventions that ratified the Constitution;[9] and in *The Federalist*, which was a collection of eighty-five essays written by three prominent advocates of the Constitution (Madison, Hamilton, and Jay) during the ratification debates to explain and justify the Constitution. Some highlights of these records are presented below, along with a discussion of relevant Supreme Court opinion on the subject questions.

The records of the making of the Constitution show that the *taxation* clause is no grant of power to provide for the general welfare, nor is it a power to *spend* money from the federal treasury for the broad and undefined objects of the general welfare. It is merely a power to *raise* money—a power that the Continental Congress lacked under the previous Articles of Confederation, which was one of the deficiencies that led to the convening of the Federal Constitutional Convention.[10] The spending power (namely, the money appropriations power) was assumed to be plainly implied in, and confined to, the *enumerated* powers—for example, to pay for armies, a navy, and post offices, and to pay the expenses incidental to the work of laying and collecting taxes and regulating commerce—as spending money is obviously a *necessary* and *proper* means to execute the specific powers.

The *welfare* clause was affixed to the *taxation* power only to define and limit the *purposes* for which taxes could be laid and collected.[11] Originally, in the Constitutional Convention, the clause "To lay and collect Taxes, Duties, Imposts and Excises" stood alone, but the framers wanted the People to understand that the tax revenues would be used to repay the debts incurred during the Revolutionary War—hence, the clause "to pay the Debts" was affixed. To leave it at that would have meant that taxes could be laid and collected only to pay debts, and so the clause "and the necessary expenses of the United States" was added. But even this was thought not to be sufficiently broad, since "Duties" on imports, for example, might be necessary, not to raise money to pay expenses of government, but to regulate commerce, as in the cases of protective and retaliatory tariffs. Also, care had to be taken to ensure against the exercise of the taxation power by Congress to the detriment of a political minority.

Hence, the framers qualified the taxing power so that it could be exercised only for the common defense and general welfare (and for paying the debts). For the welfare-clause phraseology, they simply fell back on the eighth of the Articles of Confederation, to wit:

All charges of war, and all other expenses that shall be incurred for the common defence or general welfare, and allowed by the united states in congress assembled, shall be defrayed out of a common treasury which shall be supplied by the several states.[12]

This article contained no grant of power to spend money; rather, it merely established a treasury and explained how it was to be plenished. The ninth article of the Confederation contained the enumeration of the

specific powers of the Continental Congress. Thus, just as the welfare clause in the Articles of Confederation was well understood by the framers of the Constitution to be no grant of power to spend money for the indefinite general welfare, so, too, the welfare clause in the Constitution was to be no such grant of power.

The Federalist (McLean ed., 1788, essay no. 41) specifically addressed the question of whether the welfare clause is a grant of power and explained at length that it definitely is not:

> *Some who have not denied the necessity of the power of taxation have grounded a very fierce attack against the Constitution, on the language in which it [the power of taxation] is defined. It has been urged and echoed, that the power "to lay and collect taxes, duties, imposts and excises, to pay the debts, and provide for the common defense and general welfare of the United States," amounts to an unlimited commission to exercise every power which may be alleged to be necessary for the common defense or general welfare. No stronger proof could be given of the distress under which these writers labor for objections, than their stooping to such a misconstruction.*
>
> *Had no other enumeration or definition of the powers of the Congress been found in the Constitution than the general expression just cited, the authors of the objection might have had some color for it; though it would have been difficult to find a reason for so awkward a form of describing an authority to legislate in all possible cases...by the terms "to raise money for the general welfare."*
>
> *But what color can the objection have, when a specification of the objects alluded to by these general terms immediately follows and is not even separated by a longer pause than a semicolon?...For what purpose could the enumeration of particular powers be inserted, if these and all others were meant to be included in the preceding general power?*

In the Virginia ratification convention the opponents to the Constitution feared that the welfare clause would eventually be construed by Congress as a grant of power. The Virginia governor, John Randolph, who was also a delegate to the Federal Constitutional Convention and who advocated the Constitution in the Virginia convention, assured the delegates that the welfare clause was no grant of power:

> *But the rhetoric of the gentleman has highly colored the dangers of giving the general government an indefinite power of providing for the general welfare. I contend that no such power is given. They [Congress] have power "to lay and collect taxes, duties, imposts, and excises, to pay the debts and provide for the common defence and general welfare of the United States." Is this an independent, separate, substantive power to provide for the general welfare of the United States? No, sir. They can lay and collect taxes, &c. For what? To pay the debts and provide for the general welfare. Were not this the case, the following part of the clause would be absurd [i.e., "but all duties, imposts, and excises shall be uniform throughout the United States"]. It would have been treason against common language. Take it altogether, and let me ask if the plain interpretation be not this—a power to lay and collect taxes, &c., in order to provide for the general welfare and pay debts.*[13]

Near the end of the Virginia convention when the opponents of the Constitution sensed defeat, they reverted to worrying about the welfare clause. Randolph laid the issue to rest when he said that they were

> *back to the clause giving that dreadful power, for the general welfare. Pardon me, if I remind you of the true state of that business. I appeal to the candor of the honorable gentleman, and if he thinks it an improper appeal, I ask the gentleman here, whether there be a general, indefinite power of providing for the general welfare? The power is, "to lay and collect taxes, duties, imposts, and excises, to pay the debts, and provide for the common defence and general welfare"; so that they [Congress] can only raise money by these means, in order to provide for the general welfare. No man who reads it can say it is general, as the honorable gentleman represents it. You must violate every rule of construction and common sense, if you sever it from the power of raising money, and annex it to anything else, in order to make it that formidable power which it is represented to be.*[14]

Most of the state conventions attached numerous reservations to their ratification resolutions, which called for further restrictions on the power of Congress, not enlargement. These resolutions led to the Bill of Rights, *and the Tenth Amendment*, quoted earlier,[15] which emphasizes that Congress has no powers except those delegated in the Constitution.

Furthermore, in the Federal Constitutional Convention it was proposed to add to the powers of Congress, the powers "To establish public institutions, rewards and immunities for the promotion of agriculture, commerce, trades, and manufactures"; and "To encourage, by premiums and provisions, the advancement of useful knowledge and discoveries."[16] But these powers, which would have allowed the civilian nuclear power program, were rejected.

Note that Article I, section 8, of the Constitution includes the power "To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." Now, if the

Founding Fathers wanted Congress to have a power to promote science and useful arts [technology] by providing money for research and development, then surely they would have left off the qualifier, "by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and discoveries," which limits the granted power *to promote science and useful arts* to providing for patents and copyrights, and that only.

The *Federalist* explained the limited powers of Congress in relation to the States:

In the first place it is to be remembered that the general [federal] government is not to be charged with the whole power of making and administering laws. Its jurisdiction is limited to certain enumerated objects....

The powers delegated by the proposed Constitution to the federal government are few and defined. Those which are to remain in the State governments are numerous and indefinite. The former will be exercised principally on external objects, as war, peace, negotiation, and foreign commerce; with which last the power of taxation will, for the most part, be connected. The powers reserved to the several States will extend to all the objects which, in the ordinary course of affairs, concern the lives, liberties, and properties of the people, and the internal order, improvement, and prosperity of the States.[17]

This principle of defined, limited, enumerated powers would be nonexistent if the People had granted Congress the *indefinite* power of providing for the general welfare.*

In 1906 the U.S. Supreme Court had its first occasion to address the welfare clause. In *Kansas v. Colorado* it ruled the Congress has no indefinite power to undertake projects of internal improvements, such as "reclamation of arid lands," on the claim of "a supposed general welfare." The court held that the Tenth Amendment precluded such power.[18] Indeed, as late as 1924 the U.S. Senate issued its official analysis of the Constitution, which stated:

The general welfare clause contains no provision of power, of itself, to enact any legislation, but on the contrary, the words "and provide for the common defense and general welfare" is a limitation of the taxing power of the United States, and that only.[19]

In 1935 the U.S. Supreme Court in *U.S. v. Butler* held that the *welfare clause* conferred no power to the federal government to regulate agriculture and ruled unconstitutional the Agricultural Adjustment Act, which imposed certain taxes on mills and subsidized selected farming under contracts with individual farmers to limit production and accept other regulations of agriculture.[20] Fairly interpreted, this *Butler* opinion implies that the civilian nuclear program cannot be founded on the *welfare clause*.

However, the court in its *Butler* opinion attempted to settle a separate question of the welfare clause that was not before the court as an issue for adjudication.[21] In an *obiter dictum** the court asserted that Congress can spend money for the indefinite objects of the general welfare, provided no "contractual obligations" are involved.[22] This dictum seems to have been a signal that the court was willing to accept as constitutional the new social security program, but because of the qualifier, it would still not allow the federal civilian nuclear program. In subsequent cases the Supreme Court held that the federal spending programs of social security and aid-to-housing are constitutional.[23] In these cases, however, the court would not consider the welfare-clause issue, for it was considered settled by the Butler dictum.[24] Then, in 1950, the Supreme Court in *U.S. v. Gerlach Livestock Co.* dropped the Butler no-contracts qualifier and opined that the welfare clause delegates to Congress "a substantive power to tax and appropriate [money] for the general welfare," including a power "to promote the general welfare through large-scale projects for reclamation, irrigation, or other internal improvement,"[25] which conflicts with the court ruling in *Kansas v. Colorado*.

As in the Butler case, the Gerlach opinion on the welfare clause was *obiter dictum*, since it was an attempt to settle a question not presented to the court. The dictum is of questionable weight, since the court was not presented with arguments on the question by the litigants. If the question were submitted to the court, the litigants, who would then have had a personal stake in the decision, would have taken care to research and argue the question thoroughly to illuminate the subject for the court. Moreover, the power of the judiciary extends only to *cases*, that is, controversies, sub-

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* Editor's Note: Thomas Jefferson (1748 - 1836), the Founding Father who wrote the original draft of the Declaration of Independence and was the third President of the USA (1801 - 1809), had this to say about the matter: "I hope our courts will never countenance the sweeping pretensions which have been set up under the words 'general defence and public welfare.' These words only express motives which induced the Convention to give to the ordinary legislature certain specified powers which they enumerate, and which they thought might be trusted to the ordinary legislature, and not to give them the unspecified also; or why any specification? They could not be so awkward in language as to mean, as we say, 'all and some.' And should this construction prevail, all limits to the federal government are done away. This opinion, formed on the first rise of the question, I have never seen reason to change, whether in or out of power; but, on the contrary, find it strengthened and confirmed by five and twenty years of additional reflection and experience: and any countenance given to it by any regular organ of the government, I should consider more ominous than anything which has yet occurred." Ford, Paul L., *The Works of Thomas Jefferson* (N.Y. 1904-05), XI, pp. 489-490, a letter from Thomas Jefferson to Spencer Roane, October 15, 1815.

* Editor's Note: According to *Black's Law Dictionary* (1981), *dictum* is a word "generally used as an abbreviated form of *obiter dictum*, *'a remark by the way;'* that is, an observation or remark made by a judge in pronouncing an opinion upon a cause concerning some rule, principle, or application of law, or the solution of a question suggested by the case at bar, but not necessarily involved in the case or essential to its determination; any statement of law enunciated by the court merely by way of illustration, arguments, analogies, or suggestions...*obiter dicta* lack the force of adjudication." It is further stated under *obiter dictum* that "Such are not binding as precedent."

mitted to the court and not to questions outside of the court.[26]

More importantly, the court in *Gerlach* offered no grounds for its opinion on the welfare clause, other than to cite the previous Butler dictum, while neglecting its qualifier. Thus, the power of Congress to promote civilian nuclear energy rests on the Butler dictum, through *Gerlach*, even though the no-contracts qualifier would seem to disallow the nuclear program. It remains, therefore, to examine the basis given by the court for its Butler dictum.

In support of its dictum on the welfare clause, the court in *Butler* cited only the Commentaries on the Constitution by Joseph Story, who expounded the view that the court adopted. Story's basic references were President James Monroe's 1822 "Message on Internal Improvements,"[27] which asserted that Congress had some very limited form of spending power under the welfare clause, and Alexander Hamilton's 1791 commentary on the welfare clause. However, Monroe's message was misrepresented by Story, since Story neglected the fact that President Monroe specifically held in his message that Congress does not have the power to make internal improvements (such as roads and canals) based on the welfare and commerce clauses or on any other clauses of the Constitution. (Monroe vetoed the Cumberland Road bill for that reason.)[28] Said Monroe: "I think that I am authorized to conclude that the right to make internal improvements has not been granted by the power 'to pay the debts and provide for the common defence and general welfare'."[29] (Monroe denied, too, that any other clauses confer such power: "Having now examined all the powers of Congress under which the right to adopt and execute a system of internal improvement is claimed and the reasons in support of it in each instance, I think that it may fairly be concluded that such a right has not been granted.") As for his view that the welfare clause contains some limited form of spending power, such as for disaster relief, Monroe admitted that "in the more early stage of our government" he believed otherwise,[30] namely, that the welfare clause did not have even a limited spending power implied in it, which is a better indication of the intentions of the makers of the Constitution than his slightly relaxed view adopted years later. Even so, his later view would not allow the civilian nuclear program, as that definitely would come under the heading of internal improvements legislation, which Monroe held to be unconstitutional.

The Hamilton comment cited by Story is as follows:

> *It is, therefore, of necessity, left to the discretion of the National Legislature to pronounce upon the objects which concern the general welfare, and for which, under that description, an appropriation of money is requisite and proper. And there seems to be no room for a doubt, that whatever concerns the general interests of learning, of agriculture, of manufactures, and of commerce are within the sphere of the national councils, as far as regards an application of money.*[31]

Hamilton asserted this power of appropriating money for the general welfare in his December 1791 "Report on Manufactures" as secretary of the treasury. He offered no supporting historical information for his claim. Moreover, *The Federalist*, which he coauthored, writing fifty-one of the eighty-five essays, asserts the opposite (see no. 41 by Madison). In the fifty-one essays written by Hamilton, nowhere did he make the claim later asserted in his "Report on Manufactures,"

nor did his essays even mention the welfare clause. Nor did he assert such a claim when he addressed the New York convention which ratified the U.S. Constitution.[32] If he had, the convention would have rejected the Constitution, since the States were keenly intent on limiting the powers of Congress and were repeatedly assured that the Constitution does precisely that; that is, the welfare clause is no grant of power.[33]

Indeed, very early in the Federal Constitutional Convention, Hamilton proposed a plan of Government which would have given Congress a single, unlimited power "to pass all laws whatsoever...," as he suggested the virtual dissolution of the states, replacing them with one general government for the country.[34] Specifically, Article VII of his plan stated: "The Legislature of the United States shall have power to pass all laws which they shall judge necessary to the common defence and general welfare of the Union."[35] However, his plan received no support in the convention. As Hamilton himself said, "He was aware that it went beyond the ideas of most members."[36] It thus appears that Hamilton as secretary of the treasury attempted, after the Constitution was adopted by the People and after the federal government began operation, to effectuate broad, unlimited power for the federal government, for which he could not gain approval when it was established.

Finally, some have argued that the *welfare clause*, on the face of it, clearly confers a power to provide for the general welfare. If we consider the rules of English grammar known by the framers of the Constitution, however, it can be argued that the manner in which commas, semicolons, and the conjunctive word *and* are employed throughout Section 8 of Article I, plus the selected capitalization of the word *To*, have so weakened the connection of the welfare clause to the governing verb—"Congress shall have Power To"—that the clause was probably intended to be no more than a purpose of the power to tax.[37]

The preceding should be sufficient to raise the question of whether the civilian nuclear energy program can be grounded on the welfare clause.

As for the *commerce clause*—namely, the power "To regulate Commerce" among the states—the makers of the Constitution intended that the word "Commerce" be distinguished from "Manufactures," as each were to denote separate fields of human industry, as evidenced by the before-mentioned clause, proposed in the Federal Constitutional Convention but rejected, that would have granted the Congress power to promote "agriculture, commerce, trades, and manufactures" (see also the Hamilton quotation, above). Thus a power to regulate one field (commerce) does not imply a substantive power to regulate others (for example, manufactures), nor does it imply a power *to promote* commerce *or manufactures* by spending from the federal treasury, such as promoting and regulating the manufacturing of electricity using atomic energy through a deliberate federal program. The phrase "Commerce among the several States" was meant simply to denote that activity involving the coming and going of merchandise among the states (see Monroe's "Message on Internal Improvements," for example).[38]

Recall that the Supreme Court in *Butler* held that a power to regulate *agriculture* is not among the delegated powers in the Constitution. Indeed, the court emphasized expressly that the *commerce clause* confers no such power.[39] Likewise, commerce is not manufactures. Said the Supreme Court in *Kidd v. Pearson* in 1888:

> *The language of the grant is, "Congress shall have power to regulate commerce with foreign nations and among the several States," etc. These words are used without any veiled or obscure signification. "As men whose intentions require no concealment generally employ the words which most directly and aptly express the ideas they intend to convey, the enlightened patriots who framed our Constitution, and the people who adopted it, must be understood to have employed words in their natural sense and to have intended what they have said."* Gibbons v. Ogden, *supra, at page 188 (9 Wheat. 188)*
>
> *No distinction is more popular to the common mind, or more clearly expressed in economic and political literature, than that between manufactures and commerce. Manufacture is transformation—the fashioning of raw materials into a change of form for use. The functions of commerce are different. The buying and selling and the transportation incidental thereto constitute commerce; and the regulation of commerce in the constitutional sense embraces the regulation at least of such transportation. The legal definition of the term, as given by this court in* County of Mobile v. Kimball, *102 U.S. 691, 702, is as follows: "Commerce with foreign countries, and among the States, strictly considered, consists in intercourse and traffic, including in these terms navigation, and the transportation and transit of persons and property, as well as the purchase, sale, and exchange of commodities." If it be held that the term includes the regulation of all such manufactures as are intended to be the subject of commercial transactions in the future, it is impossible to deny that it would also include all productive industries that contemplate the same thing. The result would be that Congress would be invested, to the exclusion of the States, with the power to regulate, not only manufactures, but also agriculture, horticulture, stock raising, domestic fisheries, mining,—in short, every branch of human industry....It is not necessary to enlarge*

on, but only to suggest the impracticability of such a scheme, when we regard the multitudinous affairs involved, and the almost infinite variety of their minute details.[40]

It is recognized that the *commerce clause* implies some incidental power under the *necessary and proper clause* of Article I, section 8, to regulate manufactures where the *object* of a regulation is an article of manufacture which enters interstate commerce: for example, to prohibit a harmful ingredient; or, in the case of the power industry, to regulate a power plant to ensure that the electricity flowing interstate meets certain specifications of voltage and frequency; or to regulate the interstate shipment of nuclear fuel and waste. But where the object of a supposed regulation of commerce is in fact the manufacturing facility (power plant) itself, such as controls on radioactivity leakage, then such a regulation is not authorized by the present Constitution, as that would imply that Congress has a substantive power to regulate manufactures, and this is not among the enumerated powers delegated by the Constitution. This is not to say that, if the nation is to have nuclear energy, it should not be regulated by a central authority, namely, the federal government. Rather, the question at hand is whether the federal government has at present the constitutional authority to regulate nuclear plants.[41]

For example, in *Hammer v. Dagenhart* (1918) the court struck down a federal law which prohibited the interstate shipment of articles made in factories that permitted children to work excessive hours. The court held that the object of the law was not interstate commerce but manufacturing and mining.[42] Incidentally, Congress in 1924 submitted to the states a proposed constitutional amendment that would have granted Congress the power to regulate and prohibit child labor. But the amendment, which was submitted to the state legislatures, never carried.

In 1940, however, the above well-established boundaries of the power to regulate commerce among the states were "overruled" by the Supreme Court in *U.S. v. Darby*. The court held that Congress can regulate virtually any activity that "affects" interstate commerce, such as manufacture. Specifically, the court upheld a federal labor law that used the very scheme of regulating labor (prohibitions on interstate shipments, and so on) that the earlier court in *Hammer v. Dagenhart* struck down. Said the later court, without any offer of historical argument:

The power of congress over interstate commerce is not confined to the regulation of commerce among the States. It extends to those activities intrastate ["production of goods"] which so affect interstate commerce or the exercise of the power of Congress over it as to make regulation of them appropriate means to the attainment of a legitimate end, the exercise of the granted power of Congress to regulate interstate commerce.[43]

This court opinion, then, is the basis on which the federal government claims a power to regulate the design and operation of civilian nuclear reactors from the standpoint of judging the public safety. For the 1954 Atomic Energy Act, as amended, finds that "the...processing and utilization of...nuclear [fuel] material *affect* interstate and foreign commerce and must be regulated in the national interest."[44]

This *Darby* opinion or theory is plainly a forced construction of the power to regulate commerce among the states. In 1824 the Supreme Court in *Gibbons v. Ogden* interpreted the *commerce* power plainly enough: "The subject to be regulated is commerce"; and nothing else is to be regulated.[45]

In the *Darby* case, the court based its opinion solely on a theoretical inference from the 1819 Supreme Court opinion in the case *McCullough v. Maryland*:

Let the end be legitimate, let it be within the scope of the Constitution, and all means which are appropriate, which are plainly adapted to that end, which are not prohibited, but consist with the letter and spirit of the constitution, are constitutional.[46]

Let us compare the two opinions:

The court opinion in *McCullough v. Maryland* asserted in regard to the "incidental or implied powers" of Congress that, if the "end is legitimate," then those means which are "appropriate," that is which are "plainly adapted" to the legitimate end and are in the "spirit and letter" of the Constitution, are constitutional. From this opinion, however, the Supreme Court in *Darby* inferred that any means, such as a regulation of manufactures, are automatically appropriate if taken to attain a legitimate end, which is confusing, to say the least, and appears to be a version of the dangerous rule that the "end justifies the means." Here, the criterion for *appropriateness* is switched from those means which are plainly adapted and in the *letter and spirit* of the Constitution (the Darby opinion neglects these qualifiers), to any means, just so long as they are taken to attain a "legitimate end," whatever that would mean, no matter how indirect the path. Such sophistry was definitely not to be used as the basis for interpreting the powers of Congress. Said Governor Randolph in the Virginia ratification convention: "No sophistry will be permitted to be used to...assume any other power, but what is contained in the constitution, without absolute usurpation."[47] (It is noteworthy that the court in *Butler* cited the same passage from *McCullough v. Maryland* to reach a conclusion opposite of *Darby*.)

If sophistry were allowed, the next step, that of construing a power to promote manufactures from the commerce clause, could easily be taken, as the Supreme Court did, in effect, shortly after *Darby* in the case of *Wickard v. Filburn* in 1942. Without any reference to the intentions

of the makers of the Constitution, the court held that "the stimulation of commerce is a use of the regulatory function quite as definitely as prohibitions or restrictions thereon."[48] This theory could easily be relied on to promote nuclear energy by spending, without the need for the welfare clause, as the Atomic Energy Commission has asserted.[49] But the Supreme Court in 1824, again in *Gibbon v. Ogden*, held that the commerce clause confers "the power to regulate; that is, to prescribe the rule by which commerce is to be regulated."[50] This certainly is no spending power. Recall that the Federal Constitutional Convention rejected a power to *promote* commerce and, indeed, manufactures as well.

It is contended, therefore, that the civilian nuclear program is grounded, not on the intention of those who made and established the Constitution, as to the scope of the delegated powers, or on the early opinions of the Supreme Court, which are closer in time to the making of the Constitution and may therefore be expected to be more consistent with the original intentions, but on the unfounded interpretations of the Constitution in recent judicial opinion.

The question then arises as to whether the latest court opinion is necessarily the true meaning of the Constitution. Certainly, the judgment of the court in a case is the law with respect to that case,[51] but it is argued that an opinion of the Supreme Court does not bind future courts, as we have learned from the *Darby* and *Gerlach* cases, nor does it amount to a constitutional grant of power to Congress. As Blackstone noted in regard to previous court opinions: "the *law*, and the *opinion of the judge*, are not always convertible terms, or one and the same thing; since it sometimes may happen that the judge may *mistake* the law."[52] The Constitution vests in the judiciary only the "judicial Power," which is to "extend" only to deciding cases, that is, specific controversies brought to the court for adjudication.[53] The duty to support the Constitution falls on the judges no more than on any other officer or legislator.[54] As *The Federalist* explained, the courts are to "regulate their decisions" by the Constitution—the "intentions of the people."[55] Clearly, therefore, beyond a particular case decided by the judiciary, the weight of judicial opinion should depend on the force of its reasoning. Having reviewed the relevant opinions, it is maintained that the civilian nuclear program is unconstitutional.

It is well known that the above-mentioned reverses in constitutional interpretation of the *welfare* and *commerce* clauses by the Supreme Court in the 1930s and 1940s were made in order to sustain the measures taken by the federal government to cope with concentrations of economic power and economic depression.[56] But the People are to be the source of new constitutional powers, not the judiciary. We would do well to consider the advice of President George Washington in his Farewell Address:

> *If, in the opinion of the people, distribution or modification of the constitutional powers be in any particular wrong, let it be corrected by an amendment in the way which the constitution designates. But let there be no change by usurpation; for though this, in one instance, may be the instrument of good, it is the customary weapon by which free governments are destroyed. The precedent must always greatly overbalance in permanent evil any partial or transient benefit which the use can at any time yield.*

What would it mean if the federal government's nuclear energy program is unconstitutional? It would mean that the traditional and well-established ways by which the People pursued their safety and happiness, such as requiring liability for accident damages to better ensure responsibility, regulating the manufacturing industry to protect the public health through state or county agency, and controlling what is promoted by their governments by limiting the powers of government, have been discarded without the People's consent. This does not mean that the People will not want to delegate to Congress the power to promote and regulate nuclear energy. It means only that the will of the People has not been determined; and that the People have reserved the right, should Congress want to continue with the civilian nuclear program, to decide the safety issue through delegates close to them, namely, state legislators or state convention delegates.

This concludes the present analysis of the constitutional issue. It is emphasized that it is no more than an outline of this author's argument, presented here only to raise the issue (in perhaps the only effective way). Many very serious considerations have not been addressed, such as: How would a conclusion of the unconstitutionality of the civilian nuclear program be enforced? What could be the role of the Judiciary, and could it be relied upon? If it turns out that the States who might oppose nuclear energy are in a minority but could nevertheless defeat a constitutional amendment, how could their rights be protected if the Congress does not yield to the constitutional process for resolving the nuclear safety issue? These and other important considerations, and the many questions that will surely arise, will have to be taken up in another work, where the matter may be considered in greater depth. To this end, a separate treatise, giving the author's complete constitutional analysis, is being prepared.

Finally, it must be noted, as one may surmise from the preceding analysis, that the constitutional issues being raised here have extremely profound implications, since a great many other large federal programs are founded on the expanded view of the welfare and commerce clauses—programs which, for the most part, have been established since the 1930s, such as social security, aid to housing, aid to education, civilian research and development grants including jet aircraft development,

labor standards, superhighways, farm subsidies and regulation, business loan guarantees, civilian space program, foreign aid, airport and airline subsidies, and so forth. Thus, when we question the constitutional method for resolving the nuclear safety issue, the constitutionality of perhaps most of the federal structure as we know it today, aside from the military, will be unavoidably questioned by implication. Again, it is not suggested that, if a particular program is unconstitutional, it is necessarily unwise or contrary to the will of the people, but only that the will of the people through constitutionally empowered representatives has not been determined. Seen in this context of popular control of government policy, which is of growing concern, the nuclear energy issue is just one—though perhaps the most immediately important one—among many policy issues and concerns that demand a recurrence to constitutional principles, in order that the People can best pursue their Safety, Well-Being, and Happiness. ⚠

NOTES:

1. Atomic Energy Act, secs. 1,3.a, and 3.d.
2. Said the present chairman of the U.S. Nuclear Regulatory Commission, "I would not have come to this job if I thought that nuclear power was inherently unsafe." Address to the Edison Electric Institute, 43rd Annual Convention, June 4, 1975, NRC Release no. s-8-75, by W.A Anders.
3. See sec. 170 of the Atomic Energy Act of 1954, as amended. "Indemnification and Limitation of Liability," and sec. 2.1.
4. U.S. Constitution, Article V.
5. U.S. Congress, Senate Joint Committee on Atomic Energy, *Amending the Atomic Energy Act of 1946, as Amended, and for Other Purposes*, 83d Cong., 2d sess., June 30, 1954, S. Rept. 1699, p. 10.
6. *Elliot's Debates*, 3:501. *Blackstone's Commentaries on the Laws of England* (ed T.M. Cooley, 1884), p. v. 7. Blackstone, *Commentaries*, intro., p. 59.
8. See Max Farrand, *The Records of the Federal Convention of 1787*;, rev. ed. (Yale University Press, 1937). 9. See e.g. *Elliot's Debates* generally.
10. Max Farrand, *Framing of the Constitution* (Yale University Press, 1913), p. 45.
11. Letters of James Madison to Andrew Stevenson, Speaker of the House, Nov. 27, 1830, in *Letters and other Writings of James Madison*, 4: 120-39.
12. Farrand, *Framing of the Constitution*, p. 216. *The Federalist*, no. 41.
13. *Elliot's Debates*, 3: 466. 14. Ibid., p. 599.
15. See, e.g., the letters of Madison to Stevenson, Nov. 27, 1830, in *Letters and other Writings of Madison*, 4: 120-39. See also A.A. Lipscomb, *The Writings of Thomas Jefferson*, 3: 145-53; and *Elliot's Debates*.
16. Farrand, *Records*, 2: 321, 322 (see entry dated Aug. 18, 1787).
17. *The Federalist*, nos. 14 and 45. 18. 206 U.S. ; 89,90.
19. U.S. Congress, Senate document no. 154, 68th Cong., 1st sess., p. 81. See also *U.S. v. Boyer*, 85 Fed. 432. 20. 297 U.S. 1-78, 78.
21. 297 U.S. 64-88. 22. 297 U.S. 73.
23. *Steward Machine Co. v. Davis*, 301 U.S. 586, 587; *Helvering v. Davis*, 301 U.S. 619, 640; *Cleveland v. U.S.*, 323 U.S. 329.
24. *Helvering v. Davis*, 301 U.S. 640. 25. 339 U.S. 725, 738.
26. U.S. Constitution, Article III.
27. James Monroe's "Views on the Subject of Internal Improvements," in S.M. Hamilton, *The Writings of James Monroe* (1822), 6: 216-84. J. Story, *Commentaries on the Constitution of the United States* (1873 ed.), 1: 695-704; see also 1833 ed. 1: 444-56.
28. Monroe's "Message on Internal Improvements," U.S. Congress, Annals, May 10, 1822, p. 1803.
29. "Views on Internal Improvements," *Writings of Monroe*, pp. 265, 269.
30. Ibid., pp. 249-50.
31. Alexander Hamilton, "Report on Manufactures," Dec. 5, 1791, *American State Papers*, vol. on Finance, pp. 123, 136.
32. See generally *Elliot's Debates*, New York convention.
33. Letters of Madison to Stevenson, Nov. 27, 1830, *Letters and other Writings of Madison*.
34. Farrand, *Records*, 1:281-311, for June 18, 1787.
35. Ibid., 3: 627, app. F (the Hamilton Plan).
36. Ibid., 1: 291, for June 18, 1787.
37. Lindley Murray, *English Grammar* (1809), pp. 183-86.
38. See also *The Federalist*, no. 22; Farrand, Records, 1: 135, 2: 342-43, which distinguishes "manufactures" and "commerce"; and the various resolutions of the Continental Congress on the want of a power to regulate commerce, which led to the convening of the Federal Constitutional Convention of 1787 (*Elliot's Debates*).
39. 297 U.S. 63-64, 68. 40. 128 U.S. 20-21.
41. In *Northern States Power Co. v. Minnesota* the issue before the courts was whether the State of Minnesota could, under the Atomic Energy Act, set more stringent regulations (limits) respecting radioactivity leakage from nuclear plants within its state than are set by the federal government (AEC). The courts ruled that Minnesota could not, on the ground that the Minnesota regulations would significantly interfere with the other regulatory functions of the AEC under the Atomic Energy Act. (If regulations on leakage were not properly coordinated with other plant health and safety regulations of the AEC, then important operations affecting safety might not receive adequate attention by the plant personnel.) However, in this case the courts were not presented with the fundamental issue raised in this chapter of whether the Constitution delegates to the federal government a power to regulate manufacturers—in this case, nuclear power plants. The courts merely assumed that Congress was within its constitutional authority in providing for federal regulation of the "entire spectrum" of nuclear plant operations. The court opinion referred to the welfare and commerce clauses as the source of this assumed authority, and Minnesota did not dispute this assumption. Since, therefore, the constitutionality of the Atomic Energy Act was not challenged and since the Minnesota law would interfere with the federal law, the courts were constrained to uphold the latter, because Article VI of the Constitution declares that constitutional federal laws are supreme (405 U.S. 1035, 447 Fed. 2d. 1143).
42. 247 U.S. 251, 271-273. 43. 312 U.S. 100, 118 [emphasis added].
44. Chap. 1, sec. 2.c [emphasis added]. 45. 9 Wheat. 189.
46. 4 Wheat. 421 [emphasis added]. 47. *Elliot's Debates*, 3: 205-7.
48. 317 U.S. 118.
49. *Webb v. AEC*, U.S. District Court, Southern District of Ohio, Eastern Division, Civil Action no. 72-14, AEC's motion to dismiss, pp. 6-8. This constitutional issue was submitted to the court, but the court refused to hear the case. *Hearings*, p. 188.
50. 9 Wheat. 189. 51. Blackstone, *Commentaries*, 3: 396.
52. Ibid., intro., p. 71.
53. A definition of the "judicial power" is given in ibid., 3: 24.
54. U.S. Constitution, Article VI. 55. No. 78.
56. See e.g., R.D. Heffner, *A Documentary History of the United States* (Mentor Books, 1965), chaps. 16-23: "The Gilded Age" through "The Roosevelt Revolution."