Chapter 23

The New Generation of Nuclear Power

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I. NEW NUCLEAR PLANTS

This chapter discusses the new generation of nuclear power plants. Companies in the United States are planning to add more nuclear generation to the fleet of plants that will be needed to meet the growing demand for carbon-free electricity in the United States. Many industry experts including the authors of this chapter believe that the only way the United States can meet the demands for electricity in a way that does not increase greenhouse gas emissions is for nuclear power to be an important component in the solution for clean energy.

The chapter first discusses the need and support for new plants and the obstacles that companies face in building those plants. More specifically, the chapter focuses on the rules for decommissioning or cleaning up the plants at the end of their useful life. Along with the new generation of plants, most of the existing nuclear plants have not been decommissioned. The chapter then discusses the regulatory rules under the jurisdiction of the Nuclear Regulatory Commission (NRC), the Federal Energy Regulatory Commission (FERC), and state public utility commissions (PUCs) with respect to nuclear decommissioning trust funds. Finally, the chapter focuses on the detailed and specialized federal income tax rules applicable to nuclear decommissioning trust funds.

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A. Need and Support for New Nuclear Plants

According to the U.S. Energy Information Administration (the statistical agency of the U.S. Department of Energy (DOE)), electricity demand will increase by 26 percent from 2007 to 2030.[1] This increasing demand for energy, along with the demand that electricity come in the form of a "clean energy" that does not produce greenhouse gas (GHG), makes nuclear energy a desirable source for electricity. There is also a significant demand that energy come from efficient and reliable sources, and nuclear power plants operate at high levels of safety and reliability. In fact, the new generation of power plants, known as "Generation IV" reactors, promises to use new technologies that are even safer, more reliable, and more efficient than old generation plants.[2] Additionally, the public currently appears to support the building of new nuclear plants. According to a national survey conducted by Bisconti Research Inc., the majority of the public supports nuclear energy as a way of generating electricity.[3]

To help meet the need to build more nuclear power plants, Congress passed the EPAct 2005,[4] which incorporated a wide range of measures that support today's operating nuclear plants and provide incentives for building new plants. These incentives include production tax credits (PTCs), loan guarantees, and risk protection for companies pursuing their first new reactors. The EPAct 2005 also created an assistant secretary position for nuclear issues at the DOE, extended an insurance framework to protect the public in case of a nuclear incident, and authorized funding for nuclear energy research and development.

B. The Old Generation of Nuclear Plants vs. the New Generation of Nuclear Plants

The licensing process for the old generation nuclear power plants had several shortcomings. The U.S. government licensed most of today's 104 operating nuclear power plants during the 1960s and 1970s, when commercial nuclear energy was an emerging technology. Difficulties in the licensing process included the fact that construction permits were issued to plants based on a preliminary design; the public did not have access to the details of the design until construction was almost finished; and safety issues were not fully resolved until the plant was essentially complete, resulting in substantial financial implications.[5]

1 Energy Information Administration, Annual Energy Outlook 2009 with Projections to 2030 (Mar. 2009), http://www.eia.doe.gov/oiaf/aeo/electricity.html.

2 *See* Nuclear Energy Institute, New Nuclear Plants, http://nei.org/keyissues/newnuclearplants/.

3 *See* Ann Bisconti, *Changing Times: U.S. Public Opinion About Nuclear Energy*, Wisconsin Public Utility Institute (Mar. 26, 2008), http://74.125.95.132/search?q=cache:eQjGPYVPORIJ:wpui.wisc.edu/programs/Institute%2520Lunches/Nuclear/Presentations/Bisconti.ppt+bisconti,+2008,+nuclear&cd=1&hl=en&ct=clnk&gl=us&client=firefox-a.

4 Energy Policy Act of 2005, Pub. L. No. 109-58. 119 Stat. 594 (2005) .

5 *See* Nuclear Energy Institute, New Nuclear Plants, http://nei.org/keyissues/newnuclearplants/.

In 1989, the NRC established a new, more efficient process for licensing nuclear power plants.[6] The new approach moved licensing and safety issues to the front of three processes: approval of standard designs, early site permits, and combined construction permits and operating licenses.[7] To ensure the plant is built according to the design approved in the licensing proceedings, the NRC will follow a process that determines which kinds of inspections, tests, analyses, and acceptance criteria it will use. In addition, the new approach also provides greater opportunity for the public to be involved in the process.

The new design certification process allows plant designers to secure advance NRC approval of advanced plant designs that can later be ordered, licensed, and built by other companies. At the time of this writing, several reactor designs have been certified by the NRC as meeting all safety requirements, and two more designs are being considered. The early site permit process enables companies to obtain NRC approval for a nuclear power plant site before actually deciding to build a plant. The licensing process for new nuclear power plants provides for issuance of a combined construction permit and operating license upon resolution of all plant safety issues.

The entire process, from starting the application to completing the new power plant, takes approximately nine years. Although no company in the United States has yet begun to build a new reactor, seventeen companies are pursuing licenses for approximately thirty nuclear power plants, and the NRC has begun reviewing these applications.

C. Economics of New Plants

1. Benefits Building a new nuclear power plant has many potential economic benefits, especially to local economies. This is because the average plant employs 1,400 people during construction periods and another 400 to 700 people on a long-term basis (often at salaries that are substantially higher than the average salaries in the local area).[8] The average plant also raises a significant amount of revenue annually, providing over $20 million in local and state tax revenue and $75 million in annual federal tax payments.[9]

Additional economic benefits indirectly derive from clean air technology, reliability, and efficiency.

2. Potential Hurdles New nuclear power plants are large, capital-intensive projects. Experts agree that the electric power industry must invest at least $1.5 trillion by 2030 to sufficiently fund the new nuclear power plants.[10] Financing these projects will be a challenge for the U.S. electric industry because the size of the projects is large in

6 10 CFR Part 52 (1989).
7 New Nuclear Plants, *supra* note 5.
8 *Id.*
9 *Id.*
10 *Id.*

relation to the size of the electric companies that will build them. Financing is the single largest challenge to building new nuclear plants.

In addition, domestic infrastructure for building new nuclear plants has diminished because few new plants have been built outside of Asia. As a result, the industry might face difficulties obtaining the components necessary to build new nuclear plants, as well as experienced construction management, engineering personnel, and skilled workers.[11] Potential constraints identified by the Nuclear Energy Institute (NEI) that could hinder the construction of nuclear power plants after the first four to eight new reactors are built include difficulty in obtaining: (1) component design and engineering; (2) raw materials and subcomponents; (3) work force; (4) qualified suppliers of nuclear plant components; (5) specialized equipment and machinery; and (6) global infrastructure for heavy forgings.[12] The NEI study also provides recommendations to minimize these potential constraints on new-plant construction.[13]

Nuclear waste disposal also poses a potential problem for the new generation of power plants. The current limited amount of repository space could make it difficult to meet the increased amount of waste that is produced by the new facilities.[14] In addition, in March, 2010, the U. S. Department of Energy filed a motion to withdraw its license application to establish a high level nuclear waste repository at Yucca Mountain in Nevada. Instead, a Blue Ribbon Commission on America's Nuclear Future has been established to conduct a comprehensive review of policies for managing nuclear fuel and, by the end of February, 2012, to provide recommendations for safe, long-term solutions for managing used nuclear fuel and waste.

The nuclear electric industry and governmental bodies recognize the need for cooperation to overcome these hurdles if new nuclear plants are to become a reality in the United States in the near term. To this end, the EPAct 2005 offered several forms of financial incentives for new nuclear plants. However, these incentives have been slow in actualization, and to the extent they are tied to the production of electricity, they do not address the significant capitalization needs for new plants. On the positive side, President Obama has publicly announced his Administration's commitment to the expansion of nuclear power and has categorized it as a form of "clean energy."[15] In addition, since 2005, at least fourteen states or state agencies have adopted laws or

11 *Id.*

12 *Id.*

13 *Id.*

14 *See* Joanna Borns, *Florida Outage Aside, New Plants Pave Clean Road for Nuke Power*, POPULAR MECHANICS, Feb. 27, 2008, http://www.popularmechanics.com/science/earth/4252294.html; James Lake et al., *Next Generation Nuclear Power*, SCI. AMER., Jan. 26, 2009, http://www.scientificamerican.com/article.cfm?id=next-generation-nuclear.

15 *See* Remarks of President Obama at IBEW Local 26 in Lanham, Maryland on Feb. 16, 2010 announcing the first award of loan guarantees under the EPAct 2005, http://www.whitehouse.gov/the-press-office/remarks-president-energy-lanham-maryland.

regulations to support the construction of new nuclear plants.[16] The nuclear industry will succeed in its efforts to construct new nuclear plants only if it secures the necessary financing and continues to have the support of the federal and state governments.

D. Nuclear Decommissioning in General

Decommissioning of a nuclear plant involves dismantling the plant and removing the radioactive waste from the site. The presence of radioactive materials warrants special safety precautions. The NRC regulates the process of removing a nuclear plant from active status by reducing residual radioactivity to a level that permits release of the property for other, unrestricted purposes. The four primary methods of decommissioning are immediate dismantlement, delayed dismantlement, safe storage, and entombment.

II. NRC

Over the past twenty years, the NRC has taken a more active, hands-on approach with respect to assuring that adequate monies will be readily available when needed to decommission each nuclear power plant. Prior to that time, the NRC had relied upon state public service commissions to ensure that licensees would have sufficient funds to pay for decommissioning expenses. The NRC generally began to require external funding for decommissioning expenses in 1988. The reason for the evolving role of the NRC has been its concern over the financial insolvency of licensees and the diminishing role of state public service commissions as deregulation of the electric generation industry transpired. The NRC implemented its new philosophy toward ensuring the availability of decommissioning assets by adopting external funding requirements, mandating biannual reporting requirements, requiring notice of material amendments to decommissioning trust agreements, and imposing investment and management standards applicable to decommissioning trusts. While the NRC does not regulate the tax qualification of nuclear decommissioning trust funds, it has recognized the preferred status of funds established and maintained under Internal Revenue Code (I.R.C., or Code) § 468A and has not adopted any requirements that might run afoul of those imposed by the Internal Revenue Service (IRS).

The NRC requires each nuclear power plant licensee to provide reasonable "financial assurance" that monies will be available, when needed, to pay for the decommissioning process.[17] These requirements are in addition to those imposed by states and other federal agencies. The NRC regulations specify that financial assurance can take

16 *See* Caroline Stetler, *Nuclear Lobbying Turns to States*, Investigative Reporting Workshop, American University School of Communication (Jan. 24, 2010), http://investigativereportingworkshop.org/investigations/nuclear-energy-lobbying-push/story/nuclear-lobbying-turns-states/p://

17 10 C.F.R. § 50.75(a).

the form of: (1) prepayment; (2) an external sinking fund; (3) a surety method, insurance, or other guarantee method; (4) a statement of intent for federal licensees only; (5) contractual obligations on the part of the licensee's customers which must be binding notwithstanding the operational status of the reactor or force majeure provisions; or (6) any other mechanism of equivalent assurance that is acceptable to the NRC.[18]

Prepayment consists of a deposit made (preceding the start of operations) into an account segregated from the licensee's assets and outside the administrative control of the licensee (and its subsidiaries and affiliates) of cash or liquid assets in an amount that would be sufficient to pay decommissioning costs at the time when permanent termination of operations is expected.[19] The licensee can generally take a credit for projected earnings on the prepaid decommissioning funds using up to a 2 percent annual real rate of return, up to the anticipated time of permanent termination of operations.[20]

An external sinking fund, which is the most frequent method of providing financial assurance to the NRC, involves periodically setting monies aside in an account that will be sufficient to pay decommissioning costs.[21] Like prepayment, an external sinking fund must be segregated from the licensee's assets and must be outside the administrative control of the licensee and its subsidiaries and affiliates.[22] A licensee using an external sinking fund also generally can assume a 2 percent annual real rate of return on amounts accruing in the fund until permanent termination of operations.[23]

Both prepayment and an external sinking fund can be in the form of a trust, escrow account, or government fund. Payment can be by certificate of deposit, deposit of government or other securities, or other method acceptable to the NRC.[24] An external sinking fund can be used as the exclusive method of providing financial assurances to the NRC for licensees which recover the estimated total cost of decommissioning through rates established by cost of service (or similar ratemaking) and by licensees whose source of revenues for the external sinking fund is a non-bypassable charge, the total amount of which will provide monies estimated to be needed for decommissioning the nuclear power plant.[25]

The dollar amount of financial assurance that must be demonstrated is adjusted throughout the operating life of the nuclear power plant. It is computed periodically by reference to a formula for determining a base amount expressed in January 1986 dollars and an adjustment factor to escalate the base amount to reflect current dollars.[26]

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18 10 C.F.R. § 50.75(e)(1).

19 10 C.F.R. § 50.75(e)(1)(i).

20 *Id.*

21 10 C.F.R. § 50.75(e)(1)(ii).

22 *Id.*

23 *Id.*

24 10 C.F.R. § 50.75(e)(1)(i) and (ii).

25 10 C.F.R. § 50.75(e)(1)(ii).

26 *See* 10 C.F.R. § 50.75(c). The base amount in 1986 dollars is $105 million and $135 million, respectively, for a pressurized water reactor and a boiling water reactor, assuming each has greater than 3,400 Megawatts thermal. The adjustment factor must be at least equal to 0.65L + 0.13E + 0.22B, where L and E are escalation factors for labor and energy, respectively, and are

Effective on March 31, 1999, the NRC began requiring licensees to report generally on the status of their decommissioning funding every two years.[27] Each biannual report must include the amount of decommissioning monies estimated to be required pursuant to 10 C.F.R. 50.75 (b) and (c); the amount accumulated as of the end of the calendar year preceding the submission of the report to the NRC; a schedule of future annual collections; assumptions regarding escalation rates, earnings rates, and related projections; any contract the licensee is relying upon for collecting decommissioning monies from customers; any modifications to the licensee's current method of providing financial assurance; and any material changes to decommissioning trust agreements. If a licensee is within five years prior to closing its nuclear power plant, it must submit these reports annually. Further, as a licensee approaches actual shutdown, it will need to submit more detailed decommissioning plans to the NRC.[28]

In late 2002, the NRC promulgated new Part 50.75(h) to Title 10 of the Code of Federal Regulations to implement restrictions on the investments and management of decommissioning trust funds and limitations on amending decommissioning trust agreements, among other things. In so doing, the NRC distinguished between "electric utilities"[29] and other licensees. For non–electric utility licensees using prepayment or an external sinking fund to demonstrate financial assurance, the trustee, manager, investment advisor, or other person directing investment of the monies cannot invest those assets in securities or other obligations of the licensee or any other owner or operator of any nuclear power reactor or their affiliates, subsidiaries, successors or assigns, or in a mutual fund in which 50 percent or more of the fund is invested in the securities of a licensee or parent company whose subsidiary is an owner or operator of a foreign or domestic nuclear power plant.[30] Further, the trustee, manager, et al., for such non–electric utility licensees are obligated to adhere, at a minimum, to a "prudent investor" standard of care, whether investing or otherwise.[31] Finally, the trust agreement or other document utilized by the licensee that is not an electric utility may not be amended in any material respect without giving thirty working days' prior written notice to the NRC.[32]

Both electric utility and non–electric utility licensees using prepayment and external sinking funds were required, beginning in 2002, to amend their trust agreements to

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to be taken from regional data of U.S. Department of Labor Bureau of Labor Statistics, and B is an escalation factor for waste burial and is to be taken from NRC NUREG-1307, *Report on Waste Burial Charges*.

27 10 C.F.R. § 50.75(f)(1).

28 *See, e.g.*, 10 C.F.R. § 50.75(f)(2) and (3).

29 *See* 10 C.F.R. § 50.2, which defines an "electric utility" for these purposes as any entity that generates or distributes electricity and which recovers the cost of this electricity, either directly or indirectly, through rates established by the entity itself or by a separate regulatory authority.

30 There are further refinements to this rule set forth in the final sentence of 10 C.F.R. § 50.75(h)(1)(i)(A).

31 The term "prudent investor" shall have the same meaning as set forth in the Federal Energy Regulatory Commission's Regulations, *Governing Nuclear Plant Decommissioning Trust Funds*. *See* 18 C.F.R. § 35.32(a)(3).

32 10 C.F.R. § 50.75(h)(1)(iii).

include a provision that, except for withdrawals being made for certain nominal decommissioning planning costs, or for ordinary administrative costs and incidental expenses of the funds, no disbursements or payments may be made from the decommissioning trust fund without giving thirty working days' prior notice to the NRC.[33]

Although the NRC has made significant demands on licensees over the past two decades in terms of additional requirements relating to decommissioning funding assurance, the nuclear industry has readily complied. For rate-regulated companies, the amounts are generally set aside in an external trust fund over the life of the plant. The rules require non-rate-regulated companies to set aside the decommissioning cost by prefunding, insurance, or other surety amount. With that said, however, at the date of this writing, there have not been efficient insurance or surety products available, leaving prefunding as the sole option for these licensees. Because not all companies that will build nuclear plants in the future will be rate-regulated, the cost of prefunding decommissioning will pose another significant obstacle to the next generation of nuclear power plants for nonregulated companies. In addition, such licensees may be prevented from making tax-deductible contributions to a qualified nuclear decommissioning fund over the life of the new nuclear power plant under I.R.C. § 468A if they are required by the applicable NRC rules to prefund the financial assurance amount in one year. This mis-match between NRC rules and federal tax laws only increases the financial burden imposed on non rate-regulated owners of new nuclear power plants and warrants reconciliation between these federal agencies in order to promote the expansion of nuclear energy.

III. FERC AND STATE PUBLIC UTILITY COMMISSIONS

The FERC regulates wholesale power sales which often include a component for future decommissioning expenses. The PUCs of the various states approve the rates at which retail electricity is sold, and these rates similarly include a component for future decommissioning costs of a nuclear power plant on the premise that customers who are receiving the benefit of the plant's power should bear the burden of its future shutdown costs. Whereas the NRC's concern is on health and safety such that the NRC wants a licensee to accumulate monies to allow the licensee to properly decommission its nuclear plant promptly at the end of its license, the FERC and PUCs seek to determine the appropriate amount of ratepayer, or customer, monies that should be collected for this purpose.

The requirements of the various PUCs concerning decommissioning trust funds are numerous and differ from state to state. To provide a detailed analysis of these requirements would be beyond the scope of this chapter. However, some general observations can be made. Most PUCs favor qualified decommissioning trust funds over nonqualified funds. In addition, most require significant independence between the trustee or investment manager and the owner of the nuclear power plant and parties related to that owner.

33 10 C.F.R. §§ 50.75(h)(1)(iv) and 50.75(h)(2).

The FERC has developed its own set of rules governing nuclear decommissioning trust funds. A FERC-jurisdictional decommissioning fund must be an external fund established in the United States pursuant to a written trust agreement and independent from the utility, its subsidiaries, affiliates, and associates.[34] The trustee of a FERC-jurisdictional fund must be independent from the public utility and have a net worth of at least $100 million.[35]

Under the FERC rules, the utility may provide overall investment policy to the trustee or investment manager, but only in writing, and neither the utility, nor any related party, may serve as investment manager or otherwise engage in day-to-day management of the fund or mandate individual investment decisions.[36] The investment manager must exercise the standard of care that a prudent investor would use in the same circumstances.[37] Except for securities which are otherwise held in mutual funds, the investment manager shall not invest in any securities of the utility (or a related party) for which it manages the decommissioning trust fund.[38]

The utility must submit annual reports to the FERC on March 31 showing trust fund assets and liabilities at the beginning and end of the reporting period and trust fund activity (but not individual sales and purchases) during the year.[39]

The FERC rules favor qualified decommissioning trust funds over nonqualified funds. The rules provide:

> The utility and the Fiduciary shall seek to obtain the best possible tax treatment of amounts collected for nuclear plant decommissioning. In this regard, the utility and the Fiduciary shall take maximum advantage of tax deductions and credits, when it is consistent with sound business practices to do so.[40]

This rule suggests that the FERC would encourage utility companies subject to its jurisdiction to maximize their use of qualified decommissioning trust funds through special transfers allowed by the EPAct 2005 discussed in detail below.

IV. FEDERAL INCOME TAX

This section addresses for the new generation of nuclear power plants and the federal income tax rules relating to nuclear decommissioning reserve funds under the Code.

34 18 C.F.R. § 35.32(a)(1).
35 18 C.F.R. § 35.32(a)(4).
36 18 C.F.R. § 35.32 (a)(2).
37 18 C.F.R. § 35.32(a)(3). The term "prudent investor" means a prudent investor as described in Restatement of the Law (Third), Trusts § 227, including general comments and reporter's notes, 8–101.
38 18 C.F.R. § 35.32(a)(8).
39 18 C.F.R. § 35.33(d).
40 18 C.F.R. § 35.32(a)(9).

A. Production Tax Credit for New Nuclear Plants

As part of the EPAct 2005, Congress added I.R.C. § 45J, which provides for a tax credit for electricity that is (1) produced at a new "advanced nuclear facility" during the eight-year period beginning on the date the facility is placed in service, and (2) sold by the taxpayer to an unrelated person during the taxable year.[41] This credit was intended to incentivize the construction of new nuclear power plants. However, because the credit is tied to the production of electricity, it does not provide the needed financing for getting new nuclear plants built. Additionally, a taxpayer must receive an allocation of megawatt capacity in order to take this credit which further limits it availability.

An *advanced nuclear facility* is defined as a facility that consists of a nuclear power reactor that uses nuclear energy to produce electricity through a reactor design approved by the NRC after December 31, 1993, provided it is placed in service between August 8, 2005, and January 1, 2021.[42] The requirement of a sale to an unrelated person is met even if the producer sells the electricity to a related person, as long as the electricity is resold by the related person to a person not related to the producer.

The taxpayer's PTC under I.R.C. § 45J for the taxable year is 1.8 cents per kilowatt-hour of qualified electricity that is produced at the facility and sold during the taxable year to an unrelated person.[43] The PTC is limited to the first 6,000 megawatts of power constructed.[44] If the nameplate capacity of the facility exceeds the national megawatt capacity limitation allocated to the facility, the credit percentage for the facility is determined by dividing the national capacity limitation allocated to the facility by its nameplate capacity.[45] If the facility's nameplate capacity does not exceed the national megawatt capacity limitation allocated to the facility, the credit percentage for the facility is 100 percent. The credit allowed for each facility is the lesser of (1) the tentative credit for the facility multiplied by the credit percentage for the facility, or (2) $125 million per 1,000 megawatts of national megawatt capacity limitation allocated to the facility.[46] The amount of the credit under I.R.C. § 45J is not reduced on account of any grants, tax-exempt bonds, subsidized energy financing, or other credits described in I.R.C. § 45(b)(3).[47]

To qualify for the PTC, the taxpayer must file an application with the IRS for an allocation under I.R.C. § 45J(b), and file an application to the NRC for a construction or operating license for each facility before the *later of* (1) December 31, 2007, or (2) the date on which the aggregate nameplate capacity of advanced nuclear facilities for which applications for a construction or operating license have been filed with the NRC first equals or exceeds 6,000 megawatts. Additionally, an application for

41 I.R.C. § 45J(a)(2).
42 I.R.C. § 45J(d).
43 I.R.C. § 45J(a)(1).
44 I.R.C. § 45J(b)(2).
45 I.R.C. § 45J(b)(1).
46 I.R.C. § 45J(c).
47 Notice 2006-40, Sec. 602.

certification must be submitted to, and approved by, the DOE by January 31, 2014. Further, to qualify, construction on the facility must begin before January 1, 2014.

Because there has been a significant delay in the development of new nuclear plants, legislative changes may be needed to extend the time periods relating to this credit. Additional federal incentives such as allowing an investment tax credit in lieu of the PTC similar to the treatment allowed for renewable energy facilities, or grants in lieu of credits, would better address the difficult financing issues associated with new plants.

B. Qualified Decommissioning Funds

1. Background As companies put funds aside in external trust funds, the amounts contributed are generally treated as contributions to a grantor trust under I.R.C. § 671. The taxpayer is treated as the owner of trust funds directly under the tax law. Therefore, contributions to the trust fund are not deductible, and the taxpayer owner is taxed on the earnings and gains in the trust.

Under economic performance rules of I.R.C. § 461(h), a taxpayer may only claim a deduction for liabilities when economic performance occurs.

In 1984, Congress recognized the national importance of reserving funds to pay for the eventual decommissioning of nuclear power plants and the need to provide incentives to ensure the adequacy of such funds.[48] Therefore, Congress added I.R.C. § 468A, an exception to the economic performance requirements to allow for tax deductible contributions to an external decommissioning trust fund.[49] I.R.C. § 468A provides an elective method that generally allows a taxpayer a deduction, at the time of contribution, for the amount contributed to a qualified nuclear decommissioning reserve fund (Qualified Fund). Taxpayers using an accrual method of accounting that do not elect the application of I.R.C. § 468A are not allowed a deduction for nuclear decommissioning costs prior to the taxable year in which economic performance occurs.[50]

Substantial changes were made to the rules applicable to Qualified Funds in the EPAct 2005. The IRS and the Department of the Treasury have issued proposed, temporary, and final regulations (Temporary Regulations) under I.R.C. § 468A relating to deductions for contributions to Qualified Funds. The Temporary Regulations are effective December 31, 2007, and apply with respect to taxable years ending on or after such date.

2. Eligible and Electing Taxpayer An eligible taxpayer that elects the application of I.R.C. § 468A is allowed a deduction for the taxable year in which it makes a cash payment (or is deemed to make a cash payment) to a nuclear decommissioning fund and

48 Joint Committee of Taxation Staff General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984, 98th Cong. 2d Sess. 270 (1984).

49 The Deficit Reduction Act of 1984, Pub. L. No. 98-369, 98 Stat. 494 (1984).

50 Treas. Reg. § 1.468A-1T(a).

for any taxable year in which a deduction is allowed for a special transfer.[51] The amount of the deduction for any taxable year equals the total amount of cash payments made (or deemed made) by the electing taxpayer to a nuclear decommissioning fund (or funds) during such taxable year, plus any amount allowable as a deduction in that taxable year for a special transfer.[52]

In order to be eligible to make contributions to a Qualified Fund, the taxpayer must be an eligible taxpayer for purposes of I.R.C. § 468A. The term *eligible taxpayer* means any taxpayer that possesses a qualifying interest in a nuclear power plant (including a nuclear power plant that is under construction).[53] The term *qualifying interest* means (1) a direct ownership interest; or (2) a leasehold interest in any portion of a nuclear power plant if (a) the holder of the leasehold interest is primarily liable under federal or state law for decommissioning such portion of the nuclear power plant, and (b) no other person establishes a nuclear decommissioning fund with respect to such portion of the nuclear power plant.[54]

A direct ownership interest in a nuclear power plant includes an interest held as a tenant in common or joint tenant but does not include stock in a corporation that owns a nuclear power plant or an interest in a partnership that owns a nuclear power plant.[55] In the case of a partnership that owns a nuclear power plant, the election under I.R.C. § 468A must be made by the partnership and not by the partners. In the case of an unincorporated organization that elects under I.R.C. § 761(a) to be excluded from the application of subchapter K, each taxpayer that is a co-owner of the nuclear power plant is eligible to make a separate election under I.R.C. § 468A.[56]

The term *nuclear power plant* means any nuclear power reactor that is used predominantly in the trade or business of the furnishing or sale of electric energy. Each unit (that is, nuclear reactor) located on a multi-unit site is a separate nuclear power plant. The term *nuclear power plant* also includes the portion of the common facilities of a multi-unit site allocable to a unit on that site.[57]

3. Definition of Nuclear Decommissioning Costs The term *nuclear decommissioning costs* (or *decommissioning costs*) means all otherwise deductible expenses to be incurred in connection with the entombment, decontamination, dismantlement, removal, and disposal of the structures, systems, and components of a nuclear power plant that has permanently ceased the production of electric energy.[58] It includes all otherwise deductible expenses to be incurred in connection with the preparation for decommissioning, such as engineering and other planning expenses, and all otherwise deductible expenses to be incurred with respect to the plant after the actual decommissioning

51 I.R.C. § 468A(a) and 468A(f).
52 Treas. Reg. § 1.468A-2T(a).
53 Treas. Reg. § 1.468A-1T(b)(1).
54 Treas. Reg. § 1.468A-1T(b)(2).
55 Treas. Reg. § 1.468A-1T(b)(3).
56 *Id.*
57 Treas. Reg. § 1.468A-1T(b)(5).
58 Treas. Reg. § 1.468A-1T(b)(6).

occurs, such as physical security and radiation monitoring expenses.[59] It does not include otherwise deductible expenses to be incurred in connection with the disposal of spent nuclear fuel under the Nuclear Waste Policy Act of 1982.[60] An expense is otherwise deductible if it would be deductible under chapter 1 of the Internal Revenue Code, without regard to I.R.C. § 280B.

As discussed above, the federal government does not yet have a site for companies to put their spent nuclear fuel rods from the plants. Consequently, many companies have built independent spent fuel storage installations (ISFSIs) on site to safely store the spent fuel until a federal site becomes available. The IRS has concluded that costs incurred (1) to store spent fuel assemblies (specifically construction of an ISFSI, operating and maintenance expenses associated with canisters filled with spent nuclear fuel and ongoing handling, security and storage of spent fuel) and (2) to remove retired steam generators and nuclear reactor vessel heads, are decommissioning costs within the meaning of Treasury Regulations § 1.468A-1T(b)(6).[61]

4. Limitation on Payments to a Qualified Fund The maximum amount of cash payments made (or deemed made) to a Qualified Fund during any taxable year cannot exceed the "ruling amount" (the annual amount approved by the IRS for contributions into the Qualified Fund) applicable to the Qualified Fund for such taxable year. See the discussion that follows for a more detailed explanation of the ruling amount limitation.[62]

If the amount of cash payments made (or deemed made) to a Qualified Fund during any taxable year exceeds the limitation, the excess is not deductible by the electing taxpayer.[63] In addition, the IRS can disqualify a Qualified Fund if the amount of cash payments made (or deemed made) to the Qualified Fund during any taxable year exceeds the limitation.[64]

A payment can be made (or deemed made) to a Qualified Fund when the construction of the nuclear power plant to which the fund relates has commenced and the taxpayer has received a ruling amount applicable to the fund.[65]

5. Deemed Payment Rule The amount of any cash payment made by an electing taxpayer to a Qualified Fund on or before the fifteenth day of the third calendar month after the close of any taxable year (the deemed payment deadline date) is deemed made during such taxable year if the electing taxpayer irrevocably designates the amount as relating to such taxable year on its timely filed federal income tax return for such taxable year.[66]

59 *Id.*
60 Pub. L. No. 97-425, 96 Stat. 2201 (codified as amended at 42 U.S.C. § 10101 *et seq.* (1987)).
61 IRS Priv. Ltr. Rul. 200711015 (Nov. 30, 2006).
62 I.R.C. § 468A(b).
63 Treas. Reg. § 1.468A-2T(b)(2).
64 *Id.*
65 Treas. Reg. § 1.468A-2T(a).
66 Treas. Reg. § 1.468A-2T(c)(1).

C. Income and Deduction of the Taxpayer

Taxpayers are generally required to include the amount of any actual or deemed distribution from a Qualified Fund in the gross income of the electing taxpayer for the taxable year in which the distribution occurs.[67] The amount of any payment by a Qualified Fund for administrative costs (or other incidental expenses) of such fund shall not be included in the gross income of the electing taxpayer unless such amount is paid to the electing taxpayer (in which case the amount of the payment is included in the gross income of the electing taxpayer under I.R.C. § 61). The amount of any distribution of property equals the fair market value of the property on the date of the distribution.[68] A distribution from a Qualified Fund includes an expenditure from the fund or the use of the fund's assets to satisfy, in whole or in part, the liability of the electing taxpayer for decommissioning costs of the nuclear power plant to which the fund relates and to pay administrative costs and other incidental expenses of the fund.[69]

D. Schedule of Ruling Amounts

1. Generally I.R.C. § 468A(d)(1) allows a deduction for contributions to a Qualified Fund only if the IRS approves a schedule of ruling amounts requested by the taxpayer (that is, a schedule specifying the maximum deductible contribution that can be made in each taxable year). Each schedule of ruling amounts must be consistent with applicable U.S. Treasury Regulations and must be based on reasonable assumptions concerning (1) the after-tax rate of return to be earned by the amounts collected for decommissioning; (2) the total estimated decommissioning cost of the nuclear power plant; and (3) the frequency of contributions to the qualified nuclear decommissioning fund for the taxable year.[70] The IRS will provide a schedule of ruling amounts that is identical to the schedule of ruling amounts proposed by the taxpayer, provided that the taxpayer's proposed schedule of ruling amounts is consistent with the principles and provisions of the regulations and is based on reasonable assumptions.[71]

In general, the ruling amount specified in a schedule of ruling amounts for any taxable year in the funding period shall not be less than the ruling amount specified in such schedule for any earlier taxable year.[72] The funding period for a Qualified Fund begins on the first day of the first taxable year for which a deductible payment is made (or deemed made) to the fund and ends on the last day of the taxable year that includes the last day of the "estimated useful life" of the nuclear power plant to which the fund relates.[73]

67 I.R.C. § 468A(c)(1).
68 Treas. Reg. § 1.468A-2T(d)(1).
69 I.R.C. § 468A(c)(1).
70 Treas. Reg. § 1.468A-3T(a)(2).
71 Treas. Reg. § 1.468A-3T(a)(3).
72 Treas. Reg. § 1.468A-3T(b)(1).
73 Treas. Reg. § 1.468A-3T(c)(1).

The "estimated useful life" of a nuclear plant that has been included in rate base for ratemaking purposes in any ratemaking proceeding that established rates for a period before January 1, 2006, ends on the estimated date on which the plant will no longer be included in the taxpayer's rate base for ratemaking purposes, as determined in the first such ratemaking proceeding.[74] For taxpayers that were not formerly regulated, the estimated useful life will end on the last day of the estimated useful life of the plant determined as of the date it is placed in service. The taxpayer may also use any reasonable method for determining the last day of such useful life.[75] It remains to be seen how the IRS will interpret the "estimated useful life" of a nuclear power plant for non-rate-regulated taxpayers who are required by the NRC to prefund decommissioning expenses.

The amount of decommissioning costs allocable to a Qualified Fund is the taxpayer's share of the total estimated cost of decommissioning the nuclear power plant to which the fund relates.[76] The total estimated cost of decommissioning a nuclear power plant is the reasonably estimated cost of decommissioning the nuclear power plant.[77] The taxpayer's share of the total decommissioning equals the taxpayer's qualifying interest in the nuclear plant multiplied by the total estimated cost of decommissioning the plant.[78]

2. Removal of the Cost of Service Requirement Under prior law, contributions to a Qualified Fund were deductible only to the extent they were collected as part of the cost of service to ratepayers (the "cost of service requirement").[79] As a result, only regulated utilities could take advantage of I.R.C. § 468A. In contrast, decommissioning costs of a nonregulated nuclear power plant now may be funded by deductible contributions to a Qualified Fund. Although the cost of service requirement for contributions to a Qualified Fund has been removed, the Temporary Regulations have retained a requirement that taxpayers that continue to be regulated by a PUC[80] submit the information and assumptions used by the PUC in determining decommissioning costs included in cost of service in their requests for schedules of ruling amounts.[81] A taxpayer may use alternative assumptions in the computation of the ruling amount but bears the burden of demonstrating that the proposed schedule of ruling amounts is

74 Treas. Reg. § 1.468A-3T(c)(2)(i)(A).
75 Treas. Reg. § 1.468A-3T(c)(2)(i).
76 Treas. Reg. § 1.468A-3T(d)(1).
77 Treas. Reg. § 1.468A-3T(d)(2).
78 Treas. Reg. § 1.468A-3T(d)(3).
79 I.R.C. § 88.
80 For purposes of I.R.C. § 468A and the regulations thereunder, the term "public utility commission" means any state or political subdivision thereof, any agency, instrumentality, or judicial body of the United States, or any judicial body, commission, or other similar body of the District of Columbia or of any state or any political subdivision thereof that establishes or approves rates for the furnishing or sale of electric energy. *See* Treas. Reg. § 1.468A-1T(b)(7).
81 Treas. Reg. § 1.468A-3T(a)(4).

consistent with the principles and provisions of the Temporary Regulations and is based on reasonable assumptions.[82]

In addition, under prior law, deductible contributions were limited to the amount necessary to fund the plant's post-1983 nuclear decommissioning costs (determined as if decommissioning costs accrued ratably over the estimated useful life of the plant). The EPAct 2005 amended I.R.C. § 468A to eliminate this limitation.[83] Accordingly, taxpayers may now fund the entire cost of decommissioning a plant through a Qualified Fund.

3. Special Transfers (or Pourovers) of Previously Nonqualifying Decommissioning Costs The EPAct 2005 added new I.R.C. § 468A(f), which allows a taxpayer to make a special transfer of cash or property (e.g., stocks and bonds) into the fund to its existing Qualified Fund equal to the present value of the pre-2005 nonqualifying amount[84] of nuclear decommissioning costs for the related plant. Taxpayers compute the maximum special transfer amount by (1) calculating the present value of the future decommissioning liability and (2) multiplying that present value by the difference between 100 percent and the taxpayer's qualifying percentage for the nuclear plant.[85] This calculation does not take into account the balance in the existing Qualified Fund.

No gain or loss is recognized on any special transfer.[86] The taxpayer's basis in the Qualified Fund is not increased by reason of the special transfer and the Qualified Fund's basis in the property received in the special transfer is the same as the transferor's basis in the property immediately before the transfer.[87]

4. Deductions for Special Transfers Before making a special transfer, the taxpayer must request a schedule of deduction amounts from the IRS on or before the deemed payment deadline for the taxable year of the transfer.[88] Taxpayers are allowed to deduct the amount of any special transfer ratably over the remaining estimated useful life of the nuclear plant.[89] Such remaining estimated useful life is the period that begins with the year of the special transfer and ends with the year that the plant will no longer be included in the taxpayer's rate base as determined in the first ratemaking proceeding involving the plant.[90] Because the Temporary Regulations use the initial ratemaking proceeding as the reference period or use information available at the time a plant was

82 *Id.*

83 EPAct 2005, § 1310.

84 The "pre-2005-nonqualifying amount" actually refers to the percentage of the plant's total nuclear decommissioning costs that were permitted to be funded before January 1, 2006, and hence should be called the "pre-2006 nonqualifying amount." The authors have noted this inconsistency to the IRS and expect the term will be modified when regulations under I.R.C. §468A are finalized

85 Treas. Reg. § 1.468A-8T(a).

86 Treas. Reg. § 1.468A-8T(b)(4).

87 *Id.*

88 Treas. Reg. § 1.468A-8T(c).

89 I.R.C. § 468A(f)(2).

90 Treas. Reg. § 1.468A-3T(c)(2)(i)(A), incorporated by reference into Treas. Reg. § 1.468A-8T(b)(1)(ii).

placed in service, the period of years over which the deductions for a special transfer can be claimed oftentimes will be shorter than other reference periods such as current ratemaking projections or current operating license terms.

The deduction for property contributed in a special transfer is limited to the lesser of the fair market value of the property contributed or the taxpayer's basis in the property.[91] Where a taxpayer contributes appreciated property to a Qualified Fund as part of the special transfer, the taxpayer's deduction is limited to the adjusted basis of such property, although the limitation on the special transfer reflects the fair market value of the appreciated property.

Taxpayers must request a new schedule of ruling amounts in connection with any special transfer.[92]

E. Qualification Requirements

1. Generally A Qualified Fund must be established and maintained at all times in the United States pursuant to an arrangement that qualifies as a trust under state law.[93] Such trust must be established for the exclusive purpose of providing funds for the decommissioning of one or more nuclear power plants.[94] However, a single trust agreement may establish multiple funds for such purpose.[95]

A separate Qualified Fund is required for each electing taxpayer and for each nuclear power plant with respect to which an electing taxpayer possesses a qualifying interest.[96] The IRS will issue a separate schedule of ruling amounts with respect to each Qualified Fund.[97] Each Qualified Fund must file a separate income tax return even if other Qualified Funds or Nonqualified Funds are established and maintained pursuant to the trust agreement governing such fund or the assets of other Qualified Funds or Nonqualified Funds are pooled with the assets of such fund.[98]

An electing taxpayer can maintain only one Qualified Fund for each nuclear power plant with respect to which the taxpayer elects the application of I.R.C. § 468A.[99] If a nuclear power plant is subject to the ratemaking jurisdiction of two or more PUCs, and any such PUC requires a separate fund to be maintained for the benefit of ratepayers, the separate funds maintained for such plant shall be considered a single Qualified Fund for purposes of I.R.C. § 468A.[100]

91 Treas. Reg. § 1.468A-8T(b).
92 I.R.C. § 468A(f)(3); Treas. Reg. § 1.468A-3T(f)(1)(iii).
93 Treas. Reg. § 1.468A-5T(a)(1)(i).
94 *Id.*
95 *Id.*
96 Treas. Reg. § 1.468A-5T(a)(1)(iii).
97 *Id.*
98 *Id.*
99 *Id.*
100 *Id.*

2. Limitation on Contributions A Qualified Fund is not permitted to accept any contributions in cash or property other than cash payments with respect to which a deduction is allowed under I.R.C. § 468A(a).[101] Thus, for example, except in the case of a special transfer pursuant to I.R.C. § 468A(f), securities may not be contributed to a nuclear decommissioning fund even if the taxpayer or a fund established by the taxpayer previously held such securities for the purpose of providing funds for the decommissioning of a nuclear power plant.[102]

3. Limitation on Use of Fund The assets of a Qualified Fund are to be used exclusively to satisfy, in whole or in part, the liability of the electing taxpayer for decommissioning costs of the nuclear power plant to which the Qualified Fund relates and to pay administrative costs and other incidental expenses of the Nuclear Fund.[103]

The term *administrative costs and other incidental expenses of a Qualified Fund* means all ordinary and necessary expenses incurred in connection with the operation of the Qualified Fund.[104] Administration costs include the tax imposed on the Qualified Fund, any state or local tax imposed on the income or the assets of the Qualified Fund, legal expenses, accounting expenses, actuarial expenses, and trustee expenses.[105] Administration costs do not include decommissioning costs or the payment of insurance premiums on a policy to pay for the nuclear decommissioning costs of a nuclear power plant.[106] Additionally, administration costs do not include the excise tax imposed on the trustee or other disqualified person under the self-dealing rules or the reimbursement of any expenses incurred in connection with the assertion of such tax unless such expenses are considered reasonable and necessary and it is determined that the trustee or other disqualified person is not liable for the excise tax.[107]

Each Qualified Fund trust agreement must provide that assets in the fund must be used as authorized by I.R.C. § 468A, and the regulations and that the agreement may not be amended so as to violate I.R.C. § 468A or the regulations.[108]

F. Taxation of the Qualified Fund

1. Generally The income of the Qualified Fund is subject to tax on all of its "modified gross income" at the rate of 20 percent for all years after December 31, 1995.[109] This tax is in lieu of any other tax that might be imposed under subtitle A of the Code.[110]

101 I.R.C. § 468A(e)(3).
102 Treas. Reg. § 1.468A-5T(a)(2).
103 I.R.C. § 468A(e)(4).
104 Treas. Reg. § 1.468A-5T(a)(3)(ii).
105 *Id.*
106 *Id. See also* CCA 200703007.
107 *Id.*
108 Treas. Reg. § 1.468A-5T(c)(4).
109 I.R.C. § 468A(e)(2)(A).
110 I.R.C. § 468A(e)(2)(B). For example, a Qualified Fund is not subject to the alternative minimum tax imposed by I.R.C. § 55, the accumulated earnings tax imposed by I.R.C. § 531,

The tax imposed on the Qualified Fund is treated as a tax imposed by the corporate tax provisions of the Code.[111] Additionally, a Qualified Fund is treated as if it were a corporation with respect to the procedural sections of the Code. However, a Qualified Fund is not a corporation, and therefore it does not receive the corporate dividends received deduction.

2. Modified Gross Income The term "modified gross income" means gross income as defined under I.R.C. § 61 computed with the following modifications.[112] The amount of any payment or special transfer to a Qualified Fund with respect to which a deduction is allowed under I.R.C. § 468A(a) or § 468A(f) is excluded from gross income.[113] A deduction is allowed for the amount of administrative costs and other incidental expenses of the Qualified Fund (including taxes, legal expenses, accounting expenses, actuarial expenses, and trustee expenses, but not including decommissioning costs) that are otherwise deductible and that are paid by the Qualified Fund to any person other than the electing taxpayer.[114] An expense is otherwise deductible if it would be deductible under chapter 1 of the Code in determining the taxable income of a corporation.[115]

A deduction is allowed for the amount of an otherwise deductible net operating loss of the Qualified Fund.[116] The net operating loss of a Qualified Fund for a taxable year is the amount by which the deductions allowable exceed the gross income of the Qualified Fund.[117] A net operating loss is otherwise deductible if such a net operating loss would be deductible by a corporation under I.R.C. § 172(a).[118]

A distribution of property by a Qualified Fund (whether an actual distribution or a deemed distribution) shall be considered a disposition of property by the fund for purposes of I.R.C. § 1001. In determining the amount of gain or loss from such disposition, the amount realized by the Qualified Fund shall be the fair market value of the property on the date of disposition.[119]

G. Prohibitions Against Self-Dealing

1. Generally In general, the excise taxes imposed by I.R.C. § 4951 apply to each act of "self-dealing" between a disqualified person (DQP) and a Qualified Fund.[120]

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the personal holding company tax imposed by I.R.C. § 541, and the alternative tax imposed on a corporation under I.R.C. § 1201(a). *See* Treas. Reg. § 1.468A-41(c)(4).

111 I.R.C. § 468A(e)(2)(C).

112 Treas. Reg. § 1.468A-4T(b).

113 *Id.*

114 *Id.*

115 *Id.*

116 Treas. Reg. § 1.468A-4T(b)(4).

117 *Id.*

118 *Id.*

119 Treas. Reg. § 1.468A-4T(c)(2).

120 Treas. Reg. §1.468A-5T(b)(1).

Acts considered to be self-dealing between the DQP and the Qualified Fund are described in I.R.C. § 4951(d), and include various payments, asset transfers, real estate and lending transactions, and the furnishing of goods or services for a fee. The act of self-dealing, however, does not apply to payments made by a Qualified Fund for the purpose of satisfying, in whole or in part, the liability of the electing taxpayer for decommissioning costs of the nuclear power plant to which the Qualified Fund relates; payments of amounts remaining in a Qualified Fund to the electing taxpayer after the termination of such fund; payments by a Qualified Fund that are reasonable and necessary for the performance of certain trust functions, including administrative services, banking services,[121] or any other act described in I.R.C. § 4951(d)(2)(B) or (C).[122] Self-dealing also excludes withdrawals of an excess contribution by the electing taxpayer of amounts that have been treated as distributed to the taxpayer.[123] Further, self-dealing does not include any act that is taken to facilitate the temporary investment of assets or the payment of reasonable administrative expenses of the Qualified Fund.[124]

2. Definition of a Disqualified Person A DQP is generally one who has a financial interest in the Qualified Fund. Such persons include the fund's trustee and anyone who contributes to the fund, as well as anyone who owns more than 10 percent of the corporate voting power, partnership profit interest, or the beneficial interest of a trust or enterprise that contributes to the fund.[125] A person is also considered to be a DQP when it has certain strong relationships to the trustee or a contributor to the trust. These persons include officers, directors, employees, spouses, and certain family members, as well as companies, trusts, or estates that hold more than 35 percent of the voting power, profits, or beneficial interest of the fund.[126]

H. Disqualification of Qualified Fund

1. Generally The IRS, in its discretion, may disqualify all or any portion of a Qualified Fund if at any time during a taxable year, the fund does not satisfy the requirements of I.R.C. § 468A.[127] The IRS also can disqualify a fund if the Qualified Fund and a DQP engage in an act of self-dealing.[128] The date on which a disqualification will take effect

121 Banking services allowed include the maintenance of checking accounts, as long as the bank does not charge interest on overwithdrawals; maintenance of savings accounts, as long as the fund may withdraw its funds on no more than thirty days' notice without subjecting itself to a loss of interest on its money for the time during which the money was on deposit; and general safekeeping activities. *See* Treas. Reg. § 1.468A-5T(b)(4).

122 Treas. Reg. § 1.468A-5T(b)(2).

123 *Id.*

124 *Id.*

125 *See* I.R.C. § 4951(e)(4); Treas. Reg. §53.4951-1(d).

126 *See* I.R.C. § 4951(e)(4).

127 Treas. Reg. § 1.468A-5T(c)(1).

128 *Id.*

is the date that the Qualified Fund does not satisfy the requirements of I.R.C. § 468A or the date on which the act of self-dealing occurs, whichever is applicable.[129]

2. Exception to Disqualification A Qualified Fund is not disqualified by reason of an excess contribution, or the withdrawal of such excess contribution by an electing taxpayer, if the amount of the excess contribution is withdrawn by the electing taxpayer on or before the date prescribed by law (including extensions) for filing the return of the Qualified Fund for the taxable year to which the excess contribution relates.[130] In the case of an excess contribution that is the result of a payment made to a Qualified Fund, a Qualified Fund will not be disqualified if the amount of the excess contribution is withdrawn by the electing taxpayer on or before the later of (1) the date prescribed by law (including extensions) for filing the return of the Qualified Fund for the taxable year to which the excess contribution relates; or (2) the date that is thirty days after the date that the taxpayer receives the ruling amount for such taxable year.[131]

3. Definition of Excess Contribution An excess contribution is the amount by which cash payments made (or deemed made) to a Qualified Fund during any taxable year exceed the payment limitation contained in I.R.C. § 468A(b).[132] The amount of a special transfer permitted under I.R.C. § 468A(f) is not treated as a cash payment for this purpose.[133] The income of a Qualified Fund attributable to an excess contribution is required to be included in the gross income of the Qualified Fund.[134]

4. Disqualification Treated as Distribution If all or any portion of a Qualified Fund is disqualified, the portion of the fund that is disqualified is treated as distributed to the electing taxpayer on the date of disqualification.[135] Such a distribution shall be treated for purposes of I.R.C. § 1001 as a disposition of property held by the Qualified Fund.[136] In addition, the electing taxpayer must include in gross income for the taxable year that includes the date of disqualification an amount equal to the fair market value of the distributable assets of the Qualified Fund multiplied by the fraction of the Qualified Fund that was disqualified.[137]

The fair market value of the distributable assets of the Qualified Fund is equal to the fair market value of the assets of the fund determined as of the date of disqualification, reduced by (1) the amount of any excess contribution that was not withdrawn before the date of disqualification if no deduction was allowed with respect to such excess contribution; (2) the amount of any deemed distribution that was not actually distributed

129 Treas. Reg. § 1.468A-5T(c)(1)(B)(ii).
130 Treas. Reg. § 1.468A-5T(c)(2).
131 *Id.*
132 Treas. Reg. § 1.468A-5T(c)(2)(B)(ii).
133 *Id.*
134 *Id.*
135 Treas. Reg. § 1.468A-5T(c)(3).
136 *Id.*
137 *Id.*

before the date of disqualification if the amount of the deemed distribution was included in the gross income of the electing taxpayer for the taxable year in which the deemed distribution occurred; and (3) the amount of any tax that is imposed on the income of the fund, is attributable to income taken into account before the date of disqualification or as a result of the disqualification, and has not been paid as of the date of disqualification.[138] To date, the IRS has only disqualified a Qualified Fund at the request of a taxpayer in connection with the sale of its nuclear plant.[139]

An electing taxpayer can establish a Qualified Fund to replace a fund that has been disqualified in its entirety only if the IRS specifically consents to the establishment of a replacement fund in connection with the issuance of an initial schedule of ruling amounts for such replacement fund.[140]

I. Termination of Qualified Fund upon Substantial Completion of Decommissioning

1. Generally Upon substantial completion of the decommissioning of a nuclear power plant to which a Qualified Fund relates, such Qualified Fund shall be considered terminated and treated as having distributed all of its assets on the date the termination occurs (the termination date).[141] Such a distribution shall be treated for purposes of I.R.C. § 1001 as a disposition of property held by the Qualified Fund.[142]

The electing taxpayer is required to include in gross income for the taxable year in which the termination occurs an amount equal to the fair market value of the assets of the fund determined as of the termination date, reduced by (1) the amount of any deemed distribution that was not actually distributed before the termination date if the amount of the deemed distribution was included in the gross income of the electing taxpayer for the taxable year in which the deemed distribution occurred; and (2) the amount of any tax that is imposed on the income of the fund, is attributable to income taken into account before the termination date or as a result of the termination, and has not been paid as of the termination date.[143]

Contributions made to a Qualified Fund after the termination date are not deductible under I.R.C. § 468A(a).[144] In addition, if any assets are held by the fund after the termination date, the income earned by such assets after the termination date must be included in the gross income of the electing taxpayer to the extent that such income is otherwise includible under chapter 1 of the Code.[145] Finally, an electing taxpayer using an accrual method of accounting is allowed a deduction for nuclear decommissioning

138 *Id.*
139 *See* Priv. Ltr. Ruls. 200737001 and 200737002 (both June 5, 2007) and 200729022 and 200728024 (both Apr. 5, 2007).
140 Treas. Reg. § 1.468A-5T(c)(4).
141 Treas. Reg. § 1.468A-5T(d)(1).
142 *Id.*
143 Treas. Reg. § 1.468A-5T(d)(1).
144 Treas. Reg. § 1.468A-5T(d)(2).
145 *Id.*

costs that are incurred during any taxable year even if such costs are incurred after substantial completion of decommissioning (for example, expenses incurred to monitor or safeguard the plant site).[146]

2. Substantial Completion of Decommissioning and Termination Date The substantial completion of the decommissioning of a nuclear power plant occurs on the date that the maximum acceptable radioactivity levels mandated by the NRC with respect to a decommissioned nuclear power plant are satisfied (the substantial completion date).[147] The substantial completion date is also generally the termination date of the Qualified Fund.[148]

J. Sales of Nuclear Power Plants and Transfers of Qualified Funds

Congress authorized the Treasury Department in I.R.C. § 468A(c)(1)(B) to issue regulations that prescribe the extent to which a taxpayer must include amounts from a Qualified Fund in its gross income upon the disposition of an interest in a nuclear power plant to which the fund relates. The Treasury Department originally treated such dispositions as taxable distributions of the assets in Qualified Funds.[149] However, the industry reacted overwhelmingly in opposition to this position and the Treasury Department withdrew its original regulations for further study.[150]

In 1994, the Treasury Department released its further regulations on the topic, which are premised on treating the transfer of assets of Qualified Funds in connection with the sale or disposition of a nuclear power plant as a nonrecognition event, assuming certain criteria are met.[151] The transferee of the nuclear power plant is viewed as stepping into the shoes of the transferor with respect to the amount of the assets in the transferor's Qualified Fund that is proportionate to the interest transferred and with respect to the transferor's ruling amount for the portion of the taxable year that follows the disposition. These regulations apply with respect to sales of nuclear power plants as well as to corporate reorganizations, and they apply to dispositions of plants that have permanently ceased to produce electricity.[152]

The nonrecognition provisions of Treas. Reg. § 1.468A-6T apply if (1) the transferor and transferee each maintain a Qualified Fund before and after, respectively, the disposition of the nuclear plant; (2) the interest acquired is a qualifying interest, as defined in Treas. Reg. § 1.468A-1T(b)(2), of the transferee, and (3) a proportionate amount of the assets of the transferor's Qualified Fund is transferred to the transferee's Qualified Fund as relate to the portion of the nuclear power plant transferred.[153]

146 *Id.*
147 Treas. Reg. § 1.468A-5T(d)(3).
148 *Id.*
149 *See* T.D. 8094, 1986-2 C.B. 11.
150 *See* T.D. 8184, 1988-1 C.B. 49.
151 *See* T.D. 8580, 1995-1 C.B. 95.
152 Treas. Reg. § 1.468A-6T(a).
153 Treas. Reg. § 1.468A-6T(b).

Where these conditions are satisfied, the transferor, the transferor's Qualified Fund, the transferee, nor the transferee's Qualified Fund will recognize any gain or loss or otherwise take any income into account by reason of the transfer of a proportionate amount of the assets of the transferor's Qualified Fund to the transferee's fund, and such assets will have a carryover basis in the transferee's Qualified Fund.[154]

The applicable regulations permit the transferor and transferee to bifurcate the transferor's ruling amount for the year of the disposition rather than requesting new ruling amounts if they choose to do so, however, they must request new schedules of ruling amounts if they wish to make contributions in subsequent taxable years.[155]

Since the Treasury Department promulgated these nonrecognition regulations, approximately thirty nuclear units have been sold and a number more have been the subject of corporate reorganizations. The regulations have served the industry well, and the majority of parties involved in sales transactions have secured private letter rulings from the IRS confirming the nonrecognition treatment afforded by the regulations.

The tax treatment of transfers of Nonqualified Funds is not governed by I.R.C. § 468A. In private letter rulings issued to date,[156] the IRS considers the transfer of a Nonqualified Fund to be a part of the asset purchase transaction. The IRS position espoused in each of the private letter rulings that have been issued regarding a purchase of a nuclear power plant is that the Nonqualified Fund is one of the assets transferred in the asset purchase, however, the decommissioning liability is not included in the basis of the purchased assets. This generally causes the basis in the assets purchased to be allocated to the Nonqualified Funds (which is generally cash and securities) and away from the plant. Therefore, the purchaser is unable to allocate basis to the plant to the extent of the assets associated with the Nonqualified Fund and therefore is deprived of the depreciation deductions that one would expect for the purchase of a nuclear power plant. This issue is presently being litigated and it could be several years before it is finally resolved.

K. Purchase Price Allocations Involving Nuclear Power Plants

Treas. Reg. § 1.338–6(c)(5) was added to the regulations addressing purchase price allocations in 2007 and is intended to alleviate the problem discussed above that occurs in connection with the purchase of a nuclear power plant. The assets purchased in the acquisition of a nuclear power plant generally include the plant, equipment, operating assets, and one or more Nonqualified Funds holding assets that have been set aside for the purpose of satisfying the owner's responsibility to decommission the nuclear power plant after the end of its useful life. The preamble to the regulations concludes that economic performance does not occur until decommissioning occurs and, therefore, as of the purchase date the decommissioning liability is not included in the purchase price

154 Treas. Reg. § 1.468A-6T(c).

155 Treas. Reg. § 1.468A-6T(e).

156 For example, *see* IRS Priv. Ltr. Rul. 199952974 (Jan. 3, 2000).

that the purchaser allocates to the acquired assets. As a result, as of the purchase date the purchase price to be allocated by the purchaser among the assets acquired may be significantly less than the fair market value of the assets. This situation will generally persist until economic performance with respect to the decommissioning liability is satisfied through decommissioning.

The regulations allow the purchaser of a nuclear power plant to elect to treat the Nonqualified Funds as if the Funds were an entity classified as a corporation for purposes of making the allocation of the purchase price. The regulations allow the present cost of the decommissioning liability funded by the Nonqualified Funds to be netted against the assets of the Nonqualified Funds for the sole purpose of valuing the stock of the hypothetical corporation and, thereby, an election under I.R.C. § 338(h)(10) is deemed to be made. Since the purchase price of the plant can be allocated to an asset only to the extent of the asset's value, the Nonqualified Funds would be allocated a smaller amount of the initial purchase price than if no election had been made and the plant assets would be allocation a larger amount. As a result, the basis may be recovered through the depreciation of the plant assets. In such a case, a smaller amount of the initial purchase price would be available to be allocated to the assets of the Nonqualified Funds. Accordingly, a disposition of the Nonqualified Funds' assets would likely result in current gain recognition. Therefore, this regulation provides limited relief to taxpayers and has not been widely used by taxpayers in their purchase price allocations for nuclear plants.

L. Net Operating Loss Carryback Rules Applicable to Decommissioning

I.R.C. § 172(b) allows net operating losses to be deducted in the year the loss arises, or carried back to the two years before the year that the loss arises (the carryback period) and carried forward to each of the succeeding twenty years after the year the loss arises (the carryforward period).[157] I.R.C. § 172(f), upon the election of the taxpayer, provides a ten-year carryback period for expenses incurred for certain activities such as the reclamation of land, the dismantlement of a drilling platform, and the decommissioning of a nuclear power plant.[158] I.R.C. § 172(f) also provides a special rule for nuclear power plants which allows, upon the election of the taxpayer, nuclear decommissioning expenses to be carried back to each of the taxable years beginning when the plant was placed in service (but not before January 1, 1984), and ending with the taxable year preceding the year in which the loss is incurred.[159] In 2006, the IRS clarified that decommissioning expenses incurred prior to ultimate shutdown of the plant, such as costs associated with the removal of steam generators and reactor vessel heads, may

157 I.R.C. § 172(b).
158 I.R.C. § 172(f)(1)(B)(i).
159 I.R.C. § 172(f)(4).

be characterized as nuclear decommissioning costs eligible for special carryback under I.R.C. § 172(f).[160]

V. CONCLUSION

The next generation of nuclear power plants will have the benefit of being built under an established regulatory framework of the NRC, FERC, and state PUCs as well as I.R.C. § 468A and the regulations promulgated thereunder. Future nuclear plant owners have the advantage of knowing these rules in advance. Even with the backing of federal and state governments, however, the future of nuclear power, described by the current Administration as "clean power," depends on finding the necessary financing, which remains its most significant obstacle. Additionally, changes to reconcile the federal tax laws and NRC rules may be necessary to encourage financing for new nuclear plants.

160 IRS Priv. Ltr. Rul. 200711015 (Nov. 30, 2006).