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Competition – or Collusion?

Privatization and Crony Capitalism in the Nuclear Weapons Complex: Some Questions from New Mexico

Damon Hill and Greg Mello, May 30, 2006

Summary

- Department of Energy (DOE) and National Nuclear Security Administration (NNSA) operations are almost totally privatized. All but 6% of DOE appropriations went to contractors in FY2004. From 1998 to 2004, DOE lost roughly 2/3 of its remaining non-contracted federal funds – and hence oversight capacity, in approximate terms. NNSA is worse: in FY2006 at least 96% of NNSA appropriations are going to its contractors.

- Fully one half of DOE's total budget outlays for fiscal year FY2005 went to just nine contractors. These are: Lockheed Martin, Bechtel Group, BWX Technologies (BWXT), University of California (UC), Washington Group International (WGI), Fluor Corporation, University of Tennessee (UT), Battelle, Kaiser- Hill (a joint venture of Kaiser Holding Group and CH2M Hill) and their subsidiaries.

- Four of these "top nine" contractors – Bechtel, WGI, BWXT, and UC – are partnering in Los Alamos National Security (LANS), a new site-specific, limited-liability corporation slated to take over management of Los Alamos National Laboratory (LANL) on June 1, 2006. According to DOE, this contract's total value is $36.6 billion (B).

- These same companies also hold other large contracts with DOE. Bechtel, WGI, and BWXT are partners in contracts collectively valued by DOE at $100 B, $74 B, and $67 B respectively.

- There is an increasing geographic focus to NNSA nuclear weapons spending – namely, New Mexico. In FY2006, for the first time, over half of the NNSA Weapons Activities budget line is spent in or through New Mexico.

- For some DOE contractors DOE earnings comprise a major share of total earnings. For example, 94% of BWXT's earnings come from DOE, and UC receives nearly 27% of its total operating income from DOE, more than it receives from the State of California. In addition to the large absolute value of these contracts, this degree of corporate specialization gives these companies an intense interest in DOE and NNSA policies.

- Incredibly, NNSA plans further consolidation of its contracts, using fewer contractors integrated more tightly across the complex. NNSA also plans to use contractors more for higher-level policy and decision-making functions, despite long-standing congressional concerns about this practice.

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Summary (continued)

- Increasingly, DOE contractors are forming site-specific limited liability partnerships and "integrated management teams" which collectively could be described as "committee contracting." With few firms involved, this trend suggests that to a large extent financial rewards and accountability in the nuclear weapons businesses are being pooled and diffused among a small group of corporations, universities, and captive nonprofits.

- The LANS contract in particular suggests a new model of long-term no-bid contracting in which profit and executive compensation may influence nuclear weapons policy. "At-will" employment, whistleblower "discipline," tighter control over information and communication, encouragement of employee reporting of anything or anyone impeding the mission – all point to a new ethic in which contract extension and profit could potentially outweigh other important considerations.

- Safety is in particular risk at LANL, where both the quantity and quality of federal oversight appears to be in intentional sharp decline. Federal oversight, not to say management, is being made subordinate to protecting the new contract and making sure it is profitable, quite likely so that the LANS partners will remain motivated and complaisant as far as the mission is concerned. Under the new contract, LANS will increasingly define its own safety standards and judge its own compliance with them.

- The increased fees (i.e. profit) which NNSA must pay to LANS comprises a non-trivial part of the LANL site budget. LANS must also now pay gross receipts tax, another new expense. These and other significant new LANL costs will reduce overall funding for LANL programs or else will be generated by increasing the federal deficit.

- Multi-billion-dollar contracts provide powerful incentives to distort the objectivity of government decisionmaking – a process distinct from actual corruption, for which huge contract also provide ample incentives. Where long term capital projects are involved, projects and the contractors doing them acquire considerable momentum and independent power, both of which impede government reconsideration of project merit and scale and make it difficult to control spiraling costs, poor management, and fraud.

- Since at least the 1998 election cycle, the principal corporations contracting with DOE/NNSA have consistently given around 2/3 of their political action committee (PAC) campaign contributions to Republican candidates. Such political connections appear to have benefited Bechtel and WGI handsomely. Both companies are had record profits in 2005, driven in part by lucrative government contracts. Both companies are headed by multibillionaires, in at least WGI's case this is a recent phenomenon.

- Private corporate finance of facilities at nuclear weapons sites is occurring and could influence government decisions. Private ownership of such facilities places government in the position of being an obligated long-term lessee and provides a way for boosters and ideologues to avoid full congressional scrutiny prior to project initiation.

Summary (continued)

- Transactions (sales, mergers, acquisitions) involving private DOE nuclear companies appear to be intensifying at the present time, reflecting a perception of growing new markets.

- This paper only touches on the full extent of the problems associated with the changing nature of privatization in the U.S. nuclear weapons business. Among the many topics we could not adequately explore are: the personal and political relationships of key directors and elected officials; a deeper understanding of campaign contributions of nuclear contractors; the historic relationships between nuclear contractors, elected officials, and key policy choices in states like New Mexico; the international relationships of U.S. nuclear contractors, especially in the U.K.; and the key role of nuclear weapons contractors in the promotion of nuclear electric power, both historically and in terms of President Bush's Global Nuclear Energy Project (GNEP). We believe that corporate investigations such as these comprise a fruitful line of research for both academics and activists.

Introduction: a problem so huge most of us can't see it

For most employees of the DOE nuclear weapons complex, most journalists, and even for most of us working in non-governmental organizations (NGOs), the large post- World War II role of private companies in the nuclear weapons enterprise is simply an aspect of the way things always have been, are now, and always will be.

This, however, is not the case. The role of private for-profit corporations in the nuclear weapons business is changing, as is the degree, nature, and role of federal management and oversight. All these have recently changed dramatically and they are continuing to change in serious ways that will affect everything in the nuclear weapons and the related nuclear energy business: policies, health and safety, environmental impact, worker and staff quality of life, and much more. Too often we focus on this or that mismanagement detail when the general drift of the situation is established by financial relationships and market opportunities that should enable us to predict the general nature of the problem, if not all the details.

The changes now occurring are further debasing an already badly-dysfunctional situation that has given rise to hundreds of critical reports by the General Accounting Office (GAO), the Department of Energy's (DOE's) own Inspector General (IG), Congress, and many other parties over the last two decades.[1] The nation's nuclear weapons facilities, from a management and cost-effectiveness perspective, are little more than a semi-permanent fiasco whose leaders, managers, and pork-barrel political apologists are constantly in search of some new public-relations gambit, usually one soaked in technocratic platitudes, that will inspire the workers, deflect criticism, and above all keep the money flowing.

Supporting examples are endless. Consider just one: by GAO's count, between 1980 and 1996 DOE outright cancelled some 31 out of 80 "Major System Acquisitions" (MSAs), on which more than $10 billion had already been spent. Every one of these projects had been touted as absolutely essential at one time. At the end of that period only 15 of the 80 projects that were

begun during the period had yet been completed; of these, "most of them were finished behind schedule and with cost overruns." Of the 34 MSAs still continuing in 1996, cost overruns and schedule slippage had occurred and continue on many projects.[2]

In this paper we can't begin to summarize the vast, multi-decade literature on nuclear contractor misbehavior. For readers not familiar with these realities this paper may seem poorly-supported, its conclusions too stark. On the other hand, for readers deeply familiar with these issues what we say here may seem rather obvious – and understated. Many important topics are perforce omitted and others are present only in caricature.

We urge journalists in particular to consider the big picture. Journalists run an occupational risk of considering each new level of corruption as just an incremental change from the one before, which has already been defined as "normal," thus losing the big picture and the powerful outrage it ought to generate in a democratic society.

In this paper we apply no broad new theory that would create a new frame of reference appropriate to the brave new world in which we find ourselves in 2006. This will hardly satisfy our more astute readers, just as it does not satisfy us. We use the language and assumptions of representative democracy, the applicability of which is fading fast in the United States today.

Bear with us then, take what is useful from what follows, and join us in trying to understand the changing role of private corporations and private profit in nuclear policies of the U.S. today. We welcome your help.

The Department of Energy (DOE) is the most privatized federal department.

The DOE, present-day landlord of the U.S. nuclear weapons complex, is the most privatized federal department. Fully 94% of DOE's fiscal year (FY) 2004 expenditures, the most recent for which data is available, went to contractors.[3]

Within DOE, the National Nuclear Security Administration (NNSA), the quasi-autonomous agency established to oversee the nuclear weapons program and related activities, is even more privatized: at least 96% of NNSA's FY 2006 funding is going to its contractors.[4] By contrast, just over half of the Department of Defense (DoD) budget is dispersed to contractors. Unlike DOE, DoD retains direct management control of its federal research and development centers.

Given this, it is not at all clear that the sliver of federal involvement remaining in the nation's nuclear weapons program is enough to actually manage the big contractors in any meaningful sense, or whether its actual function is simply to serve and facilitate their work. It is an important distinction.

Only a few contractors get most of the work.

The DOE allocates the majority of its total appropriations to a handful of contractors. Fully half of the $24.3 billion (B) in FY 2005 DOE budget outlays went to just 9 contractors. They are the University of California, Lockheed Martin, Bechtel Group, BWX Technologies (BWXT), Washington Group International (WGI), Fluor Corporation, University of Tennessee (UT), Battelle Memorial Institute, and Kaiser-Hill, a joint venture of Kaiser Holding Group and the engineering firm CH2M Hill.

DOE's twenty largest contract obligations (FY 2005) accounted for 71% of DOE's budget outlays and went to just 13 entities: the nine listed above plus Jacobs Engineering,

Honeywell, University of Chicago (U of C), and Brookhaven Sciences Associates (Brookhaven). These twenty largest contracts are all multi-billion dollar, multi-year awards (see Appendix A). Most have been awarded to for-profit companies.

In Table 1, we have ranked the largest DOE prime contractors by our estimate of the portion of the DOE FY 2005 budget that went to each contractor that year. We estimated a contractor's annual operating revenue from DOE prime contracts by combining DOE disbursements for contracts held solely by the contractor with estimates of the portion of revenue from partnerships, assuming each partner received an equal share. Our data excludes revenue gained and lost from subcontracts, which are numerous and tie these and other corporations together in complex ways.

Table 1: Largest DOE prime contractors, FY 2005[5] (dollars in billions)

Contractor	*No. active prime contracts (sole & partnership)*	*DOE disbursements for these prime contracts (sole & partnership)*	*Our estimate of annual revenue from those prime contracts*	*Our estimate of the portion of DOE budget going to contractor*
University of California [6]	3	$3.7	$3.7	15%
Lockheed Martin	6	$2.8	$2.6	11%
Bechtel Group	13	$4.1	$2.5	10%
Battelle Memorial Institute	8	$2.2	$1.7	7%
CH2M Hill	5	$2.8	$1.6	7%
BWXT	8	$3.2	$1.4	6%
Fluor Corporation	2	$1.2	$1.2	5%
WGI	11	$2.0	$0.8	3%
University of Tennessee[7]	1	$0.9	$0.5	2%
Honeywell	1	$0.5	$0.5	2%
University of Chicago	1	$0.5	$0.5	2%
Brookhaven Science Associates	1	$0.5	$0.5	2%
Jacobs Engineering	2	$0.6	$0.3	1%

The ranking of DOE prime contractors will change on June 1, 2006. On that date, the University of California (UC) will fall to third place as it loses its management and operations (M&O) contract for Los Alamos National Laboratory (LANL). At present, UC receives $4.1 billion (B), or 27%, of its entire $15.3 B multi-campus budget from DOE, more than it gets from the State of California.[8]

Instead of UC, four top DOE contractors – Bechtel, WGI, BWXT, and UC, partners in a new site-specific corporation called Los Alamos National Security (LANS) – will assume the LANL M&O responsibilities (and revenues). The new contract may be extended for up to 20 years, and according to the DOE is worth $36.6 billion (B), [9] with fees totaling up to $79 million X 20 years = $1.58 B. On June 1, the Bechtel Group will almost certainly become the largest DOE contractor in terms of annual revenue if not also in total contract value.

We have previously provided a general overview of the LANS corporate partners, available at www.lasg.org/technical/LANS.htm, and we do not repeat that important information here.

LANS team members are partners in multi-year DOE contracts whose total aggregate value (not correcting for double-counting due to shared contracts like LANS) has been assessed by DOE as $100 B for Bechtel, $74 B for WGI, and $67 B for BWXT.[10]

Further changes are in the works. By the end of 2007, two other DOE laboratories run by universities under "cost no fee" contracts dating back to the 1940s and 50s will have been turned over to new for-profit managers: Lawrence Livermore National Laboratory (LLNL), and Argonne National Laboratory (ANL). Companies that already derive substantial business from DOE are lining up to run these labs, continuing the process of contractor consolidation and concentration.

At LLNL, UC will lose its contract on September 30, 2007. UC is likely to team up with Bechtel to bid on the new contract.[11] DOE officials have suggested that LLNL management should look more like what LANS is preparing for LANL.[12]

At ANL, the University of Chicago will lose its contract on September 30, 2006.[13] BWXT is preparing a bid with the University of Chicago to manage ANL. This transition follows the University of Chicago's loss of its management contract at Argonne National Laboratory West on February 1, 2005. On that date, DOE combined Argonne West with Idaho National Engineering and Environmental Laboratory to form the Idaho National Laboratory (INL) under a ten-year, $4.8 B contract which was given to Battelle Energy Alliance, a partnership between the Battelle Memorial Institute, BWXT, WGI, Electric Power Research Institute (EPRI), and Massachusetts Institute of Technology. Eight other research universities also collaborate in nuclear research there.[14]

The few principal DOE contractors have deeply tangled interests and responsibilities.

Any full accounting of the financial interests of the largest DOE prime contractors is complicated by the fact that these contractors all subcontract and "partner" with each other in many locations and projects. Subcontracting relationships and the details of these "partnering" contracts are often not available to the public. We doubt they are available in any practical sense to Congress. The upshot is that there is no clear picture of *who* is doing *what* for *how much money* in the DOE nuclear weapons complex – except, of course, within the mutually-contracting corporations themselves. Any organizational diagram of the nuclear weapons complex today would not look like well-run organization with clear lines of responsibility, but rather like a spider-web. The much-derided DOE spider-web-like organizational chart found in the 1997 Institute for Defense Analysis review of the "Organization and Management of the Nuclear Weapons Program" has been more than replicated in the highly-complex, opaque relationships between private contractors – each of whom is incurring overhead charges and making a profit with each relationship in the web.

At one time, contractors operated nuclear weapons plants "as if they were divisions of the home corporation," providing in today's terms at least a small measure of accountability – in theory if seldom in actual practice.[15] For example, in the case of the environmental violations at the Rocky Flats Plant, a $18.5 million settlement was eventually paid, in part to avoid criminal prosecution of Rockwell executives.[16]

Today, subsidiaries and limited-liability partnerships are the rule, frequently in multiple layers with corresponding multiple "firewalls" to contain and control liability. Parent corporations and their executives and boards needn't be involved at all and have, we suppose, no "due diligence" standards to meet.

Some of the parent companies for DOE contractors have subsidiaries that deal mostly if not exclusively in government contracts. For example, BWXT, a subsidiary of McDermott International – a Panamanian company, the full significance of which we do not know[17] – deals almost exclusively in DOE contracts. Bechtel National is the subsidiary of Bechtel Group that deals with government contracts.

These government- or DOE-specific subsidiaries may then combine to form formal corporate partnerships like LANS, as well as other project-specific teams and other "integrated teams" that blur the lines between contractors, partners, and subcontractors – and we strongly suspect, make effective federal management and oversight structurally impossible.

For example, at the Savannah River Site (SRS), the Washington Savannah River Company (WSRC), a wholly-owned subsidiary of Washington Group International, is DOE's M&O prime contractor. WSRC, accordingly to the company web site, leads a five-member "integrated management team" composed of Bechtel Savannah River Company, Inc., British Nuclear Group (BNG) American Savannah River, BWXT Savannah River Company, and CH2 Savannah River Company.[18] Who is actually responsible?

These primary contractors, which are often site-specific partnerships, may then subcontract out a substantial portion of their work to other contractors. Unlike government contracts, the details of the subcontracts are allegedly proprietary information, effectively shielded from public scrutiny. Each subcontracting arrangement also generates separate overhead, profits, and often local sales taxes, pleasing local authorities.

Available data[19] suggests that many of DOE's prime M&O contractors also hold subcontracts at many DOE sites. For example, even through (or perhaps because) Bechtel Savannah River Company is part of the "integrated management team" at the Savannah River Site, several subsidiaries of the Bechtel Group—Bechtel BWXT Idaho, Bechtel BWXT Y-12, Bechtel Energy Alliance, Bechtel Jacobs and Bechtel Nevada – are also subcontractors at SRS. WGI and its subsidiaries hold subcontracts at INL, LANL, Hanford and surely other sites as well.[20]

Such subcontracting, besides being valuable in itself, may also place a contractor in better position to land prime contracts. It cannot hurt to have experience at a site being put up for "bid." ("Bid" is placed in quotes here because there is no "bid" involved in the conventional sense of the term; in nearly all DOE "bidding" processes, corporate resumes, not bids per se, are submitted for DOE's subjective evaluation.) For example, LANS team members BWXT, WGI and a WGI subsidiary are already "major contractors" at LANL, working in facilities maintenance, environmental management, and decontamination and dismantlement respectively.[21] Bechtel Nevada also has subcontracts at LANL, as well as at LLNL and at Sandia National Laboratories (SNL).[22]

In those cases when a prime contractor fails to meets it obligations to DOE, it may continue to do business at the site as a subcontractor. For example, BWXT of Ohio, Inc. never completed its contract with DOE for site remediation at the Miamisburg Closure Project. The total cost was $497M, or $70 M over target. DOE then awarded CH2M Hill Mound a $314 M contract to complete site closure by March 31, 2006.[23] Yet BWXT remains on the project as "an integrated subcontractor" to prime contractor CH2M Hill.[24] Although no longer the principal contractor at Nevada Test Site (NTS), will Bechtel, already active at most sites in the DOE/NNSA complex, remain at the site as a subcontractor?[25] Given its responsibilities across the complex, how could it not?

These same companies also have business partnerships that extend beyond their contracts with DOE (and with each other at DOE sites) that further entangle their interests. For example, CH2M Hill is part of a joint venture with WGI in a $1.2 B highway improvement contract with the state of Idaho.[26] CH2M Hill also has a contract (along with Parsons) to oversee the work of fellow contractors WGI, Fluor, and AMEC in Iraq. In that case, congressional investigators found that the extensive business ties between these contractors, including partnerships in DOE contracts, created conflicts of interest that seriously undermined the possibility for independent oversight in this particular case.[27] It strikes us as odd that contractors are being hired to provide oversight in the first place; oversight of prime federal contracts would seem to be a minimum federal function.

Incredibly, NNSA is planning even greater dependence on even fewer contractors.

NNSA plans further contract consolidation, using fewer contractors integrated more tightly across the complex, with these contractors performing more high-level policy and decision-making functions. On April 5, 2006, NNSA Deputy Administrator for Defense Programs Tom D'Agostino testified before House Armed Services Subcommittee on Strategic Forces as follows:

> We plan to create a fully integrated, interdependent weapons complex with several uniform business enhancements….We will move to fewer and more standard Management and Organization (M&O) contracts to capitalize on integration and interdependences within the complex. In the near-term, multi-site incentives will be added to the current contracts for a nuclear weapons complex with shared risks and rewards. Contracts will reflect a new way of doing business, acquisition activities will be centralized, and all large-scale experimental facilities will become user facilities for the entire complex with committees to review priorities for work…we will demonstrate we are moving forward on transformation: [by] acquir[ing], in 2006, a systems engineering and integration contractor (such as being used for managing [Life Extension Programs]) to support, more broadly, NNSA decision-making on weapons.[28]

These few contractors form a cartel or oligopoly which collectively has a poor track record.

While the data available to us at the present time is incomplete, the picture that is beginning to emerge is one where a few contractors monopolize much of DOE's and especially NNSA's business, and where "risks and rewards" are to be "shared" even more to provide "multi-site incentives" (D'Agostino, above).

The impression one gets from this market concentration and "teaming" within a small group of companies is of a club or cartel. Competition, in the conventional sense of the term, is absent, replaced by what DOE and the companies themselves call "teaming." When poor management decisions are made at DOE sites – and history shows this is the rule, not the exception – how is "teaming" to be distinguished from collusion? The management of NNSA's nuclear weapons complex and DOE environmental cleanup programs, to mention two of DOE's largest responsibilities, is little more than a long-running fiasco which has given rise to literally hundreds of General Accounting Office (GAO) and DOE Inspector General (IG) reports, not to

mention what must be dozens of special congressional reports and, we assume, hundreds of congressional and FBI investigations.

We do not attempt to summarize the vast government literature on DOE contractor non-performance and mal-performance here, let alone the academic and NGO literature. We do assert that since it is the contractors which receive nearly all NNSA's money and have far more staff than the NNSA itself, it is only common sense that the lion's share of responsibility for project failure must lie with these same contractors. To be sure, DOE and NNSA are also at fault, as is Congress itself for funding so many ill-conceived, unnecessary projects, usually without even cursory review of their merit or feasibility. There appears to be plenty of blame to go around.

Many of these companies have found lucrative markets in other government work, including "no-bid" government work.

While the high degree of private corporate interest in the nuclear weapons complex is disconcerting in and of itself, it is worth noting that some of the same companies who hold a major share of DOE and NNSA contracts are also major prime contractors in Iraq and Afghanistan (including Bechtel, WGI, CH2M Hill, and Fluor), which are occupied countries under military rule, both relatively lawless situations rife with contractor fraud, non-performance, and in some cases excessive profits.[29]

Bechtel, CH2M Hill, and Fluor are also prominent in no-bid FEMA contracts for hurricane relief along the U.S. Gulf Coast that have been the focus of controversy. See Table 2 below.[30]

Table 2: Selected other U.S. government revenue for top DOE contractors (in billions)[31]

Contractor	DOE Prime Contracts (FY 2005)		DoD Prime Contracts (FY 2005)[32]		Iraq & Afghanistan Prime Contracts (1/1/02-7/1/04) [33]		Recipient of no-bid FEMA contracts for hurricane relief, U.S Gulf Coast from 9/1/05 on?[34]
	Rank	*Revenue*	*Rank*	*Revenue*	*Rank*	*Revenue*	
Lockheed Martin	2	$2.6	1	$19.4	-	no known	no
Bechtel Group	3	$2.5	22	$1.5	6	$2.9	yes, ~ $0.5 B or more
CH2M Hill	5	$1.6	97	$0.3	11	$1.4	yes, ~ $0.5 B or more
BWXT	6	$1.4	-	no known	-	no known	No
Fluor Corporation	7	$1.2	92	$0.3	3	$3.8	yes, ~ $0.5 B or more
WGI	8	$0.8	37	$0.9	4	$3.6	no
Honeywell	10	$0.5	20	$1.5	-	no known	no

In some cases DOE nuclear work comprises a major share of a company's total earnings; see Table 3 below. To take one LANS partner as an example, 94% of BWXT's earnings originate with DOE. The example of UC has already been mentioned.

Specialization and market concentration have been the rule for the defense industry in general over the past quarter century. As Pierre Chao has pointed out, the share of DoD "top 100" contractor dollars given to specialized defense and aerospace firms more than doubled from

1980 to 2003 (from 29% to 62%), with corresponding shrinkage in the relative importance of dominantly commercial companies as well as broad multi-industrial companies in top-tier defense contracting.[35] Given this trend, it is no surprise that most of the top DOE and NNSA companies are also top DoD contractors as well.

There is little doubt that in addition to the large absolute value of these DOE and NNSA contracts, this degree of corporate specialization also gives these companies an intense interest in DOE and NNSA policies. There are many ways to influence those policies; we will now examine a few of these.

Table 3: Portion of top contractors' revenue from U.S. government prime contracts, FY 2005[36]
(Not including subcontracts to other U.S. government contractors)

Company	*Portion of revenue from U.S. government contracts*	*Total revenue*
BWXT	94% (BWXT has only DOE contracts)	$548 M
Lockheed Martin	85%	$37.2 B
WGI	51% (48% from DoD and DOE + 3% from other government contracts)	$3.2 B
CH2M Hill	34%	$3.2 B
Bechtel Group	~ 25%	$18.1 B
Jacobs Engineering	21.2%	$5.6 B
Fluor Corporation	20%	$13.2 B
Honeywell International	13%	$27.7 B

"In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex."

So warned President Eisenhower in his famous farewell address of January 17, 1961. Forty-five years later we have gone far beyond mere "unwarranted influence." It is now hard to tell where government ends and where the corporations which comprise and profit from its activities begin. These corporations are "parastatal," so closely identified with government (yet without any kind of democratic accountability) that government as we know it – in this case the DOE – is hardly conceivable without them. For no federal department is this more true than for the DOE.

Pretending for a moment that these DOE contractors are fully separate from government and hence "influence" it, the typical sources of "unsought" influence (using Eisenhower's language) include a few well-known phenomena. The first is regional economic dominance, which translates directly and reflexively into pork-barrel political support. Another form of "unsought" influence occurs when a corporation so dominates a field of technical endeavor that its language and its culture, including its policy assumptions and technological choices, become the dominant frame of reference for the entire field. Career decline or abrupt termination is frequently the reward for any person with the temerity to use another frame of reference. Then there is the "revolving door" that brings federal employees into corporate service and vice versa. Where else, after all, can an expert work after "retirement" or a change of administration?

After a while, the sum total of prior policy commitments exerts a diffuse influence on national policy. For example, endless repetition of national security themes in public debate leads to a military interpretation of the entire security field, which leads in turn to more contracts.

When all you have is a hammer, everything looks like a nail. And of course one military commitment breeds another as all other policy choices seem to disappear in the rear view mirror.

"Unsought" influence is made so much more powerful and effective by influence which is assiduously *sought*. It is sought in many ways, not least by campaign contributions, lobbying, executive branch interventions of various types (which mostly leave no trace), by directly writing laws and policies that benefit a company or sector from positions acquired for just that purpose, by all the arts of public persuasion and propaganda, and finally when all else fails, by bribery gross and subtle.

Of all these paths to unwarranted influence we will briefly examine only three: lobbying, campaign contributions, and the "revolving door." And we will very briefly look at only four companies: Lockheed Martin, WGI, Fluor, and Bechtel.

Between 1998 and 2004, Lockheed spent $61.8 M on lobbying.[37] During that period, Lockheed Martin's inflation-adjusted income from government contracts increased from $22.0 B (70% of net sales in 1998) to $31.6 B (85% of net sales in 2004)[38] – a 15,534% return on its lobbying investment, if you like.

More information on Lockheed's lobbying, campaign contributions, and its "revolving door" can be found in a previous paper at http://www.lasg.org/technical/LockheedMartin.htm.

From 1998 and 2004 WGI spent $4.5 M total lobbying Congress, $1.4 M of that in 2002 alone. In 2002, WGI added William Flanagan, former Commander-in-Chief of the United States Navy's Atlantic Fleet, to their board. Following his military career Flanagan worked for Cantor Fitzgerald, an investment banking firm, and was directly involved in developing and designing emerging markets, particularly those brought about by government deregulation and privatization.[39]

Perhaps as a result of these efforts and others (or possibly because of the company's outstanding performance and value to the government), WGI's inflation-adjusted government-contract income increased from $312.3 M in 1998 to $605.9 M in 2005. Since the company's reorganization in 2002, "net income has increased at a compound annual growth rate of 16 percent," according to president and CEO Stephen Hanks. [40] WGI's new work for the first quarter of 2006 totaled $738.3 M, due in part to additional task orders in Iraq and the LANL contract.[41]

In addition to landing at least $3.6 B in contracts in Iraq and Afghanistan, a WGI led-team "will be assigned or will compete for tasks" under a $10 billion, 10-year contract to provide rapid response support to the U.S. Air Force and Department of Defense worldwide.[42] As the *Toledo Blade* has noted, WGI won far less government work under the previous administration.[43]

From 1998 to 2004, Fluor spent $3.6 M lobbying.[44] Connected to this fact or not, over roughly the same period, Fluor's inflation-adjusted income from government contracts increased from $0.88 B in 1998 to $2.76 B in 2005. As of 2004 the federal government became Fluor's single largest customer.[45]

Fluor's growth continues. Fluor's first-quarter 2006 earnings nearly doubled over the previous year's to $88.9 million. Revenues increased 27% from the previous quarter to a whopping $3.6 billion driven largely by government contracts with FEMA, DOE, and for reconstruction in Iraq. Government contract revenue doubled and operating profit jumped more than 700% in the quarter.[46]

Fluor, like other top DOE corporate contractors, has consistently given around 2/3 of its political action committee (PAC) contributions to Republican candidates since at least the 1998

election cycle. So far in the 2006 election cycle, Flour has given 84% of its PAC contributions to Republican candidates.[47]

Bechtel, the sixth-largest U.S. private company, led by multibillionaire Steven Bechtel, saw record revenues for a third year in a row last year.[48] In 2005, Bechtel earned $18.1 B in revenue and booked $18.5 B in new projects, the third-highest level in the company's history.[49]

Bechtel has longstanding ties to previous and current presidential administrations. Caspar Weinberger, former Secretary of Defense under Reagan, shuffled back and forth between senior positions with government and with Bechtel. Former Secretary State George Shultz is on the board of Bechtel. When protestors blocked President Bush from a meeting at the Hoover institution where Shultz is a fellow, the meeting was moved to Shultz's private residence.[50] Shultz, like Donald Rumsfeld, is also on the Board of Gilead Sciences, owner of the Tamiflu patent, and he has profited handsomely from bird flu fears and U.S. government stockpiling of the drug, having sold more than $7 million worth of Gilead stock since the beginning of 2005.[51]

More information about Bechtel and its relations with the U.S. government, with links to still more, can be found at www.lasg.org/technical/LANS.htm.

Appropriators in the House of Representatives have been outraged for many years by the extent to which DOE contractors form a "shadow government," inappropriately influencing government policy.

Since at least the mid-1990s Congress, and specifically the House Appropriations Committee, has consistently expressed concern over the extent to which contractors influence DOE policy. In 1995 House appropriators observed that

> …services such as janitorial services, mail room operations, and grounds maintenance are activities which often are more cost-effective when performed by the private sector…. However, other support services contracts comprise a "shadow government" which performs functions traditionally performed by federal employees – administrative and clerical support, preparation of budgets, performance of compliance reviews of contractor activities, and extensive preparation of analyses used by decision-makers.[52]

In their view federal managers had become "contract managers rather than program managers," not fully cognizant of the issues under their purview.

A year later, in its 1996 report (reviewing DOE's FY1997 appropriation), the same Committee found that DOE had no idea even how many contractors were working in its offices.

> The Committee has tried unsuccessfully over the past several months to obtain accurate, credible, and consistent numbers of contractor employees at each Departmental site. It is difficult to understand why neither Headquarters nor the field organizations have been able to provide this information on a timely basis.[53]

In its 1998 report the Committee noted that

> The Department of Energy is the largest civilian contracting agency in the Federal government. In fiscal year 1996, the Department obligated $16.4 billion, or about 83 percent of its total obligations, to contracts."[54]

As we have seen, this fraction had risen another 11% to 94% by 2004, *removing about 2/3 of remaining federal oversight capacity in raw fiscal terms.*

The Committee noted that four years earlier, in 1994,

> the Department issued a report on its unique contracting system and identified numerous weaknesses, many of which arise from the common problem of the Department not having adequate control of its contractors. The Secretary of Energy conceded that contractors were not being held accountable, and consequently, the Department could not ensure that taxpayers' dollars were being prudently expended. The report recommended some 48 reforms, including the policy to open its M&O contracts to competition. Despite this policy, the General Accounting Office (GAO) analysis of the Department's contract reform initiative notes that the Department continues to award most of its contracts noncompetitively….Of 24 contracting decisions made from July 1994 to the end of August 1996, the Department decided to extend 16 contracts on a noncompetitive basis and to competitively award the other eight. [55]

Then, in language which would echo down subsequent years, the Committee repeats one of its central themes.

> The Committee continues to be concerned about excessive use of support service contractors and other non-Federal employees throughout the Department of Energy, and the involvement of these contractor employees in the development of Federal policies and programs.

We quote this report at length because its concerns are closely related to those of this paper, and all these concerns are expressed by this Committee in one way or another over a period of several years.

> …Federal employees have augmented themselves by hiring large numbers of support service contractors to assist them. A consequence of this is the risk of Federal employees losing their technical expertise and spending most of their time managing contracts, rather than sharpening their own skills…funding for such contracts appears to remain excessive or even [to] increase in certain program areas…
>
> The Committee is also aware of other instances where the Department is supplementing its Federal staff with … management and operating (M&O) contractor employees from the Department's laboratories and facilities who are on detail to Headquarters program organizations. An audit by the Department's Inspector General last year found almost 400 laboratory employees assigned to the Washington, D.C. area for periods of six months or longer, and providing a

> wide range of services directly to program offices. The Inspector General concluded that laboratory contract employees were involved in programmatic and policy arenas in which real or perceived conflicts may exist between their official duties and the tasks they assume when serving the Departmental program offices, and that the Department may be augmenting its Federal workforce in a way that is neither cost-effective nor consistent with its staffing objectives.
>
> …The Committee is aware that the Department is hiring contractors to write speeches for Departmental employees, attend and report on Congressional hearings, clip articles of interest to the program areas, track legislation, and prepare Congressional briefing materials. These are examples of activities which the Committee thought Federal employees were being paid to perform. Since the Committee cannot rely on the integrity of the Department to control these types of contracts, the Committee is eliminating funding associated with support service contracts throughout many of the program areas.
>
> In addition, the Committee directs the Department to eliminate the use of all support service contractors or subcontractors hired by M&O contractors to support Headquarters program or field office Federal employees. This is a flagrant violation of the Committee's direction to identify all support service contractor funding in the budget request, and it is a violation of Departmental and Federal policies which state that it is inappropriate for program offices to use M&O contractors to obtain direct contract support for their programs.[56]

The Committee's 1999 Report continued some of the same themes. In one relevant portion,

> The Committee continues to be very concerned about the inappropriate use of contractors in the development of budget requests and execution of Department programs. The Committee has learned that certain contractors have been reimbursed by the Department for the following activities: answering the organization's phones, faxes and e-mails; updating web sites of the organizations; getting industry together to develop "consensus positions" on Department programs; conference calls with Department employees once a month; publishing association journals and other publications; and attending domestic and international conferences to represent their industry members. These contracts and grants are especially suspect considering that they are routinely awarded noncompetitively. While there may be instances where it is necessary for the Department to procure the services of a contractor for a specific task, it is inappropriate for the Department to routinely fund the operating budgets for these outside groups. As a rule, the Department should procure services from contractors in arms-length arrangements. In cases where it is determined that a specific service or product is needed and it is in the interest of the Department to secure the service or product through a grant or contract, the Department should procure or award using competitive procedures.[57]

By the following year (2000), the Committee had learned that

> In fiscal year 1998, Department of Energy contractors spent almost $250,000,000 for travel expenses. One contractor reported over 4,500 trips to Washington, D.C., or almost 87 trips each week….[58]
>
> The Committee continues to be concerned about excessive use of support service contractors and other non-Federal employees throughout the Department of Energy. In fiscal year 1998, the Department spent approximately $50,000,000 on management and operating (M&O) contractor employees assigned to Headquarters program organizations and to support M&O contractor offices in the Washington metropolitan area. In addition to permitting contractor employees to make policy and manage Federal programs, some M&O employees are being paid through overhead accounts to track legislation and lobby Congress, market their services to other Federal agencies, and walk the halls of the Department's headquarters office to seek more Departmental funding. It is apparent that the Department has been completely negligent in monitoring both the direct and indirect overhead costs incurred by M&O contractors. While many of these activities are quite beneficial to the contractor, they are of significantly less benefit to the U.S. taxpayer.
>
> The recent GAO report on contractor travel highlighted the Department's lax attitude toward controlling costs at nuclear weapons laboratories. Contractors at the nuclear weapons complex spent $146,000,000 on travel in fiscal year 1998, and of that amount, the three nuclear weapons laboratories accounted for $116,000,000. A report by the Inspector General highlighted the excessive costs of operating the Department's aircraft at Albuquerque. In addition, six percent of all operating funds provided to each laboratory is allocated to the laboratory director for discretionary research. The three weapons laboratory directors control the use of approximately $200,000,000 with little Congressional oversight. [By 2006 this would double to $400 million.] Then, there are the contractor overhead charges paid by the Department with little thought. These overhead costs include management and operating (M&O) contractor offices maintained in Washington for the convenience of the contractor, "centers of excellence" established by the contractor to support efforts to seek new missions, and tiered overhead costs which multiply the cost to the government for work performed by subcontractors to the M&O.[59]

Perhaps the M&O contractors, especially the labs, having had to trim their semi-permanent Washington, DC staffs, the purpose of which was largely to influence DOE policy, simply undertook to travel to our nation's capital more frequently.

In its 2001 report the Committee said many of the same things, but overall the Committee appeared to be weakening at this point – in part worn down, we might guess, by its inability to control the contractors whose grip on the weapons complex and its policies was strengthening, not diminishing, despite all the rhetoric.

> Contractor travel funding was limited in fiscal year 2000 to $150,000,000 after a General Accounting Report identified significant travel abuses including one national laboratory that was averaging over 80 trips a week to Washington. Even with the reduction in funding in fiscal year 2000, data provided through February 2000 on contractor travel indicates that the same laboratory is still averaging 70 trips a week to Washington. The Committee strongly urges the Department to review the need for this many trips to Washington and ensure that contractor travel for specific program needs throughout the nuclear weapons complex is not being curtailed by an excess of management trips to Washington.[60]

In its 2002 through its 2005 reports, the Committee repeats some of the same themes, albeit less stridently, and does not recommend drastic action. In 2006, the lack of federal oversight was again a theme:

> Lastly, the Committee finds the lack of oversight applied by Federal site officials within the nuclear weapons complex [specifically as regards to safeguards and security] to be particularly disturbing. Federal oversight is diminished by the fact that too few Federal personnel are assigned to oversight responsibilities, and those few who do fulfill oversight roles are ill-trained to administer oversight and are denied professional development opportunities to advance their oversight knowledge, skills, and abilities. The lack of quality federal oversight, which DOE cannot assure, risks producing inaccurate budget estimates that receive only cursory review at critical junctures and are merely passed along to the next authority level.…The Committee will not accept a weakened oversight capability and urges prompt corrective action.[61]

Why was the House unable to reform DOE and especially weapons complex contracting practices? The answers are fairly obvious and many have been discussed above. No set of answers on this subject would be complete, however, without considering the very particular role of the Senate Energy and Water Appropriations Committee, whose chairman Pete Domenici has made funding for the two nuclear weapons laboratories in New Mexico and the nuclear industry they anchor a central aspect of his career – perhaps its centerpiece.[62]

The case of Los Alamos: Profit first?

The new LANS contract suggests a new model of conditional long-term, effectively uncompeted, no-bid contracts in which profit incentives and executive compensation will help shape nuclear weapons policy implementation.

As of July 1, 2006 all LANL employees become "at-will" employees under the LANS contract. While under UC management, LANL employees had the right to organize and were provided due process rights to their jobs under California law.[63] Under the LANS contract, this will no longer be the case at LANL. Current Livermore employees are already concerned that they will soon face similar changes.[64]

Private corporate management and less government oversight will bring greater whistleblower "discipline," tighter control over information and communication, and according

to an internal presentation by the incoming LANL director, encouragement of employee reporting of anything or anyone impeding the mission.[65]

Collectively these changes all point to a new ethic in which contract extension and corporate profit could potentially override any and all other considerations. The new LANS/LANL contract awards contractor fees based on performance. When these fees are deadline-driven, as is now the case in plutonium bomb core ("pit") production, nuclear contractors may cut corners, as they have so often in the past, to meet the deadline and make the profit or fee.[66]

These production deadlines are, in LANL's case, possibly the very highest NNSA priority.[67]

DOE safety oversight at LANL is draining away by design.

The repercussions of the LANS contract on safety and oversight at LANL have yet to be fully seen. The picture at this time is disconcerting. The Los Alamos Site Office (LASO) overseeing the contractor is currently stretched thin. During the recent six-week "strategic pause" when federal oversight at Los Alamos was significantly curtailed, NNSA headquarters reduced LASO's staffing ceiling from 129 to 117 employees and asked them to find creative solutions other than hiring staff.

The Defense Nuclear Facilities Safety Board (DNFSB) has repeatedly expressed concern over the inadequate government oversight at a time of major institutional transformation. In a March 10, 2005 report, a DNFSB site representative notes that only 6 of the 7 current health and safety experts at LASO appear qualified compared to the 30 or so persons believed needed to support nuclear and non-nuclear safety oversight.[68] At an April 4, 2006 hearing in Los Alamos, DNFSB board members questioned how LANS with as yet undeveloped and largely self-assessed procedures will be able to assure safety under less government oversight.

One of the present authors spoke at that hearing, in remarks highly relevant to the present issue.[69]

It was subsequently announced that DOE's most senior safety inspector at LANL was being transferred, in his view (and ours) in an attempt to streamline operations and free them from safety-driven impediments.[70]

These changes are just a small part of a larger picture. Very recently, DOE has announced its intent to disband its office of environment, safety, and health – reportedly just as this office was slated to review contractor safety plans and rule on waivers requested by individual contractors.[71] The issue is the perennial one of production milestones vs. safety and the environment.

> Paul L. Ziemer, whom President George Bush named in 1990 as the first head of the office, said in a telephone interview that the contractors who actually performed most of the work at the department had a tendency to put production milestones and schedules ahead of safety or environmental protection and that "the temptation to put those things in a secondary place is much greater if you don't have an independent organization with some level of clout performing oversight."[72]

Some sites are blending the government-owned, contractor-operated (GOCO) paradigm with a new contractor-owned, contractor-operated (COCO) approach to capital projects.

Corporate financing of large projects has begun at NNSA nuclear weapons sites, bypassing the congressional line-item process. As government becomes a lessee, real and implied contractual obligations could bind future government decisions.

On December 1, 2005, Lawler-Wood, a private company, broke ground on $150 M project to replace older, government-owned office buildings at the Y-12 national security complex. The office buildings are slated to house 1,500 employees. NNSA will lease the privately owned and financed buildings for at least $11 M annually.[73] As a privately financed project, Lawler-Wood can circumvent a past Y-12 agreement requiring union labor.[74]

LANL has raised the possibility of third party financing of new buildings as a cost-effective way to replace older facilities.[75] Sandia National Laboratory has already developed a real estate guidance plan for private financing.[76]

The DOE nuclear contractors are now playing a major role in promoting nuclear energy, and the potential markets available for well-placed companies are potentially enormous.

This of course is another large subject that for we cannot even sketch adequately here. In passing we should note, however, that SNL, by its own account, played a major role in developing President Bush's recently-announced Global Nuclear Energy Project (GNEP),[77] which envisions the creation of very large new global markets, in aggregate long-term potential value (assuming all goes as planned) of trillions of dollars, in nuclear reactors, spent fuel reprocessing, waste disposal, uranium enrichment, and allied industries across the nuclear spectrum.

Some of the principal DOE contractors are now visibly positioning themselves for these new markets. We note that Bechtel was a substantial government partner throughout the Atoms for Peace program and built many of the world's civilian research reactors.[78]

Recently, WGI has said it is likely to bid on the British Nuclear Group (BNG), once a large holder of DOE contracts and the operating arm of BNFL, a U.K. state-owned corporation. The U.K. government may order a new generation of reactors, and BNG is likely a door into that and other related markets such as nuclear cleanup in the U.K.[79]

Big projects can lead to big boondoggles and especially at DOE, often do.

Multi-billion-dollar contracts develop independent institutional and political momentum, impeding government reconsideration of their merits. Big projects can seem like great ideas until real-world problems intervene, but by that time long-term commitments and the rise of powerful vested interests can prevent project reconsideration or downsizing. The Hanford Waste Treatment and Immobilization Plant (WTIP) is a case in point.

Bechtel National is building the WTIP with subcontractor WGI – in Bechtel's words, the two making up an "integrated team with company affiliations being indistinguishable."[80] Excluding Bechtel's fee, costs have nearly doubled since early 2005, from $5.8 B to $11.3 B, and are still rising. The latest $1 B increase is to cover any additional "unknown unknowns" Bechtel might encounter.[81] Overall, Hanford's cleanup costs are expected to total up to $60 billion and the work to continue until 2035.[82]

Bechtel National's management performance at Hanford raises concerns over what to expect at LANL, including an alleged hostile work environment that discourages reporting of safety concerns and "fast track" construction practices that overlook contrary facts in favor of meeting fee deadlines.[83]

We cannot but note that DOE clean-up sites like Hanford are more accessible to public scrutiny than the ultra-secret NNSA sites where breaches of safety, environmental regulation, and mismanagement are less likely to see the light of day. When problems do emerge in such a secretive environment there is little to suggest that other troubling issues do not also lie beneath the surface.

Appendix A

DOE "Top 20" Contracts, FY05, by annual obligations

Rank	Site	Contractor	Contract Duration	Description of Contract	Total Contract Value	DOE Budget Obligations, FY 2005
1	Sandia National Laboratory (SNL), Albuquerque, NM	Sandia Corp. (Lockheed Martin since 1993)[84]	10/15/1993-9/30/2009	Cost plus award fee, Management and Operations (M&O)	$21,988,443,497	$2,291,554,410
2	Los Alamos National Laboratory (LANL), Los Alamos, NM	University of California	6/30/1979-5/31/2006	Cost no fee, M&O	$35,413,534,530	$2,101,474,258
3	Lawrence Livermore National Laboratory (LLNL), Livermore, CA	University of California	01/01/2003-9/30/2007	Cost no fee, M&O	$33,994,671,289	$1,471,481,219
4	Savannah River Site (SRS), Aiken, SC	Washington Savannah River Company (WSRC), LLC[85]	121/14/2000-9/30/2010	Cost plus award fee, Integrated Team M&O	$13,783,459,754	$1,325,619,806
5	Oak Ridge National Laboratory, Oak Ridge, TN	UT-Battelle, LLC[86]	10/18/1999-3/31/2010	Cost plus incentive fee, M&O	$7,718,646,335	$944,307,319
6	Hanford Site, Hanford, WA	Fluor Daniel Hanford Inc.	8/06/1996-9/30/2006	Management and Integration (M&I)	$8,463,139,599	$776,821,546
7	Y-12 Plant, Oak Ridge, TN	BWXT Y-12, LLC[87]	8/31/2000-9/30/2010	Cost plus award fee M&O	$5,801,389,973	$776,075,950
8	Hanford Site, Hanford, WA	Bechtel National Inc.[88]	12/11/2000 - 7/31/2011	Design, construction, and commissioning of Hanford Take Waste Treatment and Immobilization Plant	$11,054,857,071	$681,445,473

9	Rocky Flats Closure Project, Golden, CO	Kaiser-Hill, LLC[89]	1/24/2000-12/15/2006	Cost plus incentive fee	$3,697,469,175	$647,886,932
10	Pacific Northwest Laboratory, Richland, WA	Battelle Memorial Institute	12/30/1964-9/30/2007	Cost plus fee award M&O	$16,044,355,829	$619,833,744
11	Idaho National Laboratory (INL), Idaho Falls, ID	Battelle Energy Alliance, LLC[90]	11/09/2004-9/09/2014	Cost plus award fee M&O	$4,800,000,000	$612,272,657
12	Oak Ridge, TN	Bechtel Jacobs Company, LLC[91]	12/18/1997-9/30/2008	M&I for Environmental Management	$5,544,336,331	$513,106,578
13	Pantex Plant, Amarillo, TX	BWXT Pantex, LLC[92]	7/28/2000-9/30/2006	Cost plus award fee M&O	$2,108,922,857	$513,092,899
14	Kansas City Plant, Kansas City, MO	Honeywell, Inc.	10/19/2000-9/30/2006	Cost plus award fee, M&O	$2,838,503,348	$503,953,283
15	Argonne National Laboratory (ANL)	University of Chicago	1/1/1940-9/30/2006	Cost no fee for operation of ANL	$136,015,652,066	$492,963,927
16	Nevada Test Site (NTS), Las Vegas, NV	Bechtel Nevada, Inc.	10/27/1995-9/30/2006	Cost plus award fee, Performance based management contract	$6,627,710,680	$475,038,103
17	Brookhaven National Laboratory (BNL), Brookhaven, NY	Brookhaven Science Associates, LLC	1/5/1998-1/4/2008	cost plus fixed fee for operation of BNL	$3,430,039,330	$462,700,717
18	Lawrence Berkeley National Laboratory (LBNL), Berkeley, CA	University of California	4/19/2005-5/31/2010	Cost plus incentive fee, performance-based management contract (PBMC)	$433,847,554	$433,847,554
19	Bettis Atomic Power Laboratory, West Mifflin, PA	Bechtel Bettis Inc.	8/13/1998-6/30/2009	Cost plus fixed fee, M&O	$4,113,877,129	$435,142,194
20	Fernald Environmental Management Project, Cincinnati, OH	Fluor Fernald, Inc.	11/20/2000-12/31/2006	Remediation, Restoration, and Closure	$2,720,000,000	$395,778,170
TOTAL "top 20" contractors					$389,797,235,435	$16,474,396,739
Other DOE contract obligations[93]						$6,531,286,171
Other DOE outlays						$1,338,955,090
TOTAL FY2005 DOE appropriation						$24,344,638,000

Sources: DOE FY2007 Congressional Budget Request, DOE PADS, contractor press releases

Appendix B

Principal Sites in the U.S. Nuclear Weapons Complex and Their Prime Contractors						
Site	Location	Land Area	FY 2006 NNSA Budget (millions)[94]	Contractor	Direct Contractor Employment[95]	Contract Duration/ Expiration
Kansas City Plant (KCP)	Kansas City, MO; 12 miles S of downtown Kansas City	122 acres	$345.9	Honeywell Inc.	2,642 (out of 2,920 employees site-wide)	10/19/2000 – 12/31/2010
Lawrence Livermore National Laboratory (LLNL)	Livermore, CA; 45 miles E of San Francisco	12 sq. miles	$1127.2	University of California	5,180 (out of 7,550 employees site-wide)	01/01/2003 - 09/30/2007
Los Alamos National Laboratory (LANL)	Los Alamos, NM; 25 miles NW of Santa Fe	28,000 acres	$1593.9	After 6/1/06, Los Alamos National Security (LANS), LLC [partnership between Bechtel, UC, BWXT, WGI]	6,498 (out of 9,305 employees site-wide)	12/21/2005 – 9/30/2026
NNSA Service Center	Albuquerque, NM (at Kirtland AFB)	-	$745.6	N/A	[468 federal on site]	N/A on site; various elsewhere
Nevada Test Site (NTS)	65 miles NW of Las Vegas	1,375 sq. miles	$402.7	National Securities Technology (NSTec), LLC [partnership between Northrop Grumman, AECOM, CH2M Hill, & Nuclear Fuel Service]	2,053 (out of 3,004 employees site-wide)	07/01/2006 - ?/?/2016[96]
Pantex Plant	Panhandle, TX; 17 miles NE of Amarillo	16,000 acres	$484.4	BWXT Pantex, LLC [partnership between BWXT, Honeywell, & Bechtel]	3,228 (out of 3,315 employees site-wide)	07/28/2000 – 1/31/2011
Sandia National Laboratory (SNL)	Kirtland Air Force Base (KAFB), S of Albuquerque, NM[97]	9,000 acres	$1269.7	Sandia Corporation [subsidiary of Lockheed Martin][98]	5,102 (out of 8,713 employees site-wide)	10/15/1993 – 9/30/2009
Savannah River Site (SRS)	Aiken, South Carolina; bordering the Savannah River	310 sq. miles	$270.1	Washington Savannah River Company (WSRC), LLC: [subsidiary of WGI; leads team of Bechtel Savannah River Company, Inc., BNG American Savannah River, BWXT Savannah River Company, & CH2 Savannah River Company]	1,520 (out of 9,973 employees site-wide)	08/06/1996 - 12/31/2006
Y-12 National Security Complex	20 miles W of Knoxville, TN	800 acres	$826.4	BWXT Y-12, LLC: [Partnership between BWXT & Bechtel]	4,120 (out of 4,500 Site-wide)	08/31/2000 – 9/30/2010
Washington Headquarters	Washington, DC & Germantown, MD	-	$577.3	N/A	[766 federal; 1,866 all NNSA sites][99]	N/A

Sources: DOE Congressional Budget Request (FY 2007), NNSA and contractor press releases, PADS

Endnotes

[1] By as early as 1988, the GAO alone had issued a string of over 30 reports on just environmental, safety, and health problems throughout the nuclear weapons complex, and in July of that year assessed the overall cost of correcting the problems at more than $100 billion. This estimate turned out to be very low. See GAO, "Dealing With Major Problem Areas in the Nuclear Defense Complex Expected to Cost Over $100 Billion," T-RCED-88-53, July 13, 1988.

[2] Government Accounting Office, "Department of Energy: Major System Acquisitions From 1980 Through 1996," RCED-97-85R, March 4, 1997.

[3] Federal Procurement Data System, White House Office of Budget and Management, and *FY2006 Congressional Budget Request, Vol. 1 National Nuclear Security Administration*, United States Department of Energy, (http://www.mbe.doe.gov/budget/06budget/Content/Volumes/Vol_1_NNSA.pdf).

[4] *FY2007 Congressional Budget Request, Vol. 1 National Nuclear Security Administration*, United States Department of Energy, DOE/CF-002, February 2007, (http://www.mbe.doe.gov/budget/07budget/Content/Volumes/Vol_1_NNSA.pdf).

[5] Source: DOE Procurement and Assistance Data System (PADS).

[6] Figures doe not include 158 smaller contracts valued by DOE at $11,775,630 for FY2006. See Procurement Assistance Data System (PADS) for details, (http://professionals.pr.doe.gov/ma5/MA-5Web.nsf/Procurement/PADS?OpenDocument).

[7] Figures do not include 38 smaller contracts valued by DOE at $1,061,022 for FY2006.

[8] *Budget for Current Operations 2006-2007*, University of California, http://budget.ucop.edu/rbudget/200607/200607-budgetforcurrentoperations.pdf.

[9] PADS; see above.

[10] These figures represent the total value of all contracts in which the entity has a share. Figures are for the maximum value of a contract over it's lifetime as calculated by the DOE's Procurement Assistance Data System.

[11] "Livermore lab seeks manager: DOE solicits proposals for contract starting in 2007; UC has led facility since its inception in 1952," Contra Costa Times, Betty Mason, 10 May 2006, (http://www.contracostatimes.com/mld/cctimes/news/local/states/california/14543457.htm).

[12] "Officials: Lab needs to be like Los Alamos; New team sought so Livermore would mirror management in New Mexico," InsideBayArea.com, 12 May 2006, (http://www.insidebayarea.com/trivalleyherald/ci_3814160).

[13] "BWXT teams with University of Chicago for Argonne Lab," *The Oak Ridger*, 19 December 2005, (http://www.oakridger.com/stories/121905/new_20051219030.shtml).

[14] (http://www.energy.gov/print/1539.htm), (http://www.inl.gov/factsheets/docs/partners.pdf) and (http://www.battelle.org/news/04/11-09-04IdahoLabWin.stm).

[15] *Nuclear Weapons Databook, Vol. 2: U.S. Nuclear Warhead Production*, Natural Resources Defense Council, Thomas Cochran et al, 1987, p146.

[16] *Making a Real Killing: Rocky Flats and the Nuclear West*, Len Ackland, University of New Mexico Press, 1999, pp.229-242.

[17] These advantages are said to include: virtually no reporting requirements, including no Panamanian tax returns, no audits, and no disclosure of the names of the owners and shareholders; no Panamian income tax; offshore profits can be invested anywhere in the world; shares can be issued in registered "bearer" form; and so on. From http://www.lawyers-abogados.net/en/Services/corporations-panama.htm.

[18] (http://www.srs.gov/general/srs-home.html)

[19] We have subcontractor lists for SRS and LLNL and partial lists for LANL and Pantex; other information is available from corporate press releases and web sites.

[20] Washington Group International, (http://www.wgint.com/).

[21] (http://business.lanl.gov/documents/major_subcontractor_listing_10.1.05.pdf).

[22] Bechtel Group, (www.bechtel.com).

[23] "Follow-up Audit Report on the Department of Energy's Performance of the Miamisburg Closure Project," DOE/IG-0721, 14 March 2006, (http://www.ig.doe.gov/igreports.htm#cal2006).

[24] (http://www.bwxt.com/operations/bwxto.html).

[25] Bechtel Nevada, a partnership between Bechtel National and Lockheed Martin, recently lost the Nevada Test Site (NTS) Management and Operations (M&O) contract to National Security Technologies (NSTec), LLC. The Northrop Grumman-led

team consists of partners AECOM, CH2M Hill, and Nuclear Fuels Technology. This 5-year contract is valued at approximately $500 M annually, $2.5 B total, which is slightly smaller than Bechtel Nevada's 11-year $6.6 B NTS contract.

[26] "CH2M Hill makes billion-dollar strides under eye of a modest leader," *Rocky Mountain News*, Roger Fillion, 10 December 2005, (http://www.rockymountainnews.com/drmn/other_business/article/0,2777,DRMN_23916_4304468,00.html).

[27] Parsons, a private engineering and construction company, holds two DOE construction contracts ($374 M total) at Savannah River where WGSC (WGI) is the prime contractor. Bechtel and Parson Brinkerhoff are the prime contractors for Boston's 15 year $14.6 B "Big Dig," where cost overruns and scandal have come to be expected. See "Contractors Overseeing Contractors" (http://www.globalsecurity.org//military/library/report/2004/contract_report.pdf) and (http://www.boston.com/news/local/massachusetts/articles/2006/05/05/big_dig_probe_expanding/).

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[84] Sandia National Laboratory also has facilities in Livermore, California (400 acres), Kauai, Hawaii (120 acres) and Tonopah, Nevada (600 sq. miles). Lockheed Martin is also in partnership with British Nuclear Fuels Ltd., and SERCO, forming the Atomic Weapons Establishment Management, Ltd. (AWEML), which manages nuclear weapons sites in the United Kingdom.

[85] Washington Savannah River Company (WSRC) LLC, a wholly-owned subsidiary of Washington Group International, leads an "integrated management" team consisting of Bechtel Savannah River, Inc., BNG America, BWXT Savannah River Company, CH2 Savannah River Company (http://www.srs.gov/general/srs-home.html).

[86] UT-Battelle, LLC is a 50-50 limited liability partnership between the University of Tennessee and Battelle Memorial Institute, a non-profit research and development organization (http://www.ut-battelle.org/about.htm).

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[88] Bechtel Nevada is composed of Bechtel Nevada Corporation and Lockheed Martin Nevada Technologies, Inc. (http://www.bechtelnevada.com/about.htm).

[89] Kaiser-Hill, LLC is a joint-venture of Kaiser Group Holdings and CH2M Hill Companies, Ltd. (http://www.hoovers.com/kaiser-hill/--ID__112840--/free-co-factsheet.xhtml).

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[93] Our estimate based on FY 2004 figures, see Federal Procurement Data System (https://www.fpds.gov).

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[95] Projected figures for FY 2006. (DOE, op. cit.) These figures do not include all the subcontractors, or the federal employees at KCP, LLNL, LANL, NTS, Pantex, SNL, SRS, or Y-12.

[96] Previous contract (10/21/1999-9/3/2005; $2,925,000,000 total; extended, payment unknown) held by Bechtel Nevada Corporation, composed of Bechtel Corporation and Lockheed Martin Corporation.

[97] Sandia National Laboratory also has facilities in Livermore, California (400 acres), Kauai, Hawaii (120 acres) and Tonopah, Nevada (600 sq. miles).

[98] Lockheed Martin is also in partnership with British Nuclear Fuels Ltd., and SERCO, forming the Atomic Weapons Establishment Management, Ltd. (AWEML), which manages nuclear weapons sites in the United Kingdom.

[99] Total NNSA federal employment, includes 204 persons in naval reactors, 100 in environmental projects, 575 in secure transportation, and 1,857 in all other programs.