Articles

The *New* Single Process Initiative Threatens to Erode the *Boyle* Military Contractor Defense

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TABLE OF CONTENTS

I. Introduction 130
II. The Military Contractor Defense as Established by the Supreme Court in Boyle v. United Technologies Corporation 130
  A. Facts and Procedural History 131
  B. The Supreme Court Decision 132
III. The Single Process Initiative 134
IV. SPI and the Erosion of the Boyle Defense 136
  A. Reasonably Precise Specifications and the Scope of the Government Approval 136
    1. *Trevino v. General Dynamics Corporation* 137
    2. *Smith v. Xerox Corporation* 139
    3. *Skyline Air Service v. G.L. Capps Company* 140
    4. *Harduvel v. General Dynamics Corporation* 142
    5. *Bailey v. McDonnel Douglas Corporation* 144

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Published by Digital Commons @ DU, 1996

B. Commercially Available Equipment 146
C. Modified Commercially Available Equipment 148
D. SPI and the Duty to Warn 149
E. Approval Through Knowledge and Continued Use 151
V. SPI and the Policy of the Military Contractor Defense 152
VI. Conclusion 152

I. Introduction

There has recently been a strong shift in the rules and procedures regarding acquisitions by the U.S. Government. The most significant reform in the military contract industry is what has been termed the "Single Process Initiative" ("SPI") which allows Government contractors to make block changes to existing contracts. The changes include a shift from mandatory strict compliance with detailed military specifications ("milspecs"), to the use of commercial practices and performance standards. One underlying effect of this shift is that it may open the door to claims against Government contractors that were otherwise immune from suit under the Military Contractor Defense ("MCD"), which was established in the 1988 by the Supreme Court in *Boyle v. United Technologies Corp.*[1]

This article discusses the ramification of the SPI on the *Boyle* defense. The Part II discusses the Military Contractor Defense ("MCD"), its underlying policy, and historical significance. The Part III analyzes the SPI and gives examples of its early application. Part IV takes a look at the MCD's breadth of application, the limitations contained in numerous post-*Boyle* cases, and the anticipated effect when the SPI becomes part of a product design and/or manufacturing process. Lastly, this article discusses the policy goals of the MCD in light of the SPI.

II. The Military Contractor Defense as Established by Boyle v. United Technologies Corp.

Boyle was the first time the MCD was adopted at the highest level of the U.S. judiciary system. However, it was not the first time that the legal industry had seen or used the defense. For years, the MCD had worked its way through the federal courts where there was inconsistent application of the doctrine among the circuits. The Supreme Court granted certiorari to resolve the dispute.[2]

1. 487 U.S. 500 (1988).
2. Certiorari was granted in Boyle v. United Technologies Corp., 479 U.S. 1029 (1987).

A. Facts and Procedural History

Boyle involved the unfortunate death of Marine helicopter pilot David A. Boyle in an accident on April 27, 1983.[3] Boyle was piloting a Sikorsky CH-53D off the coast of Virginia with another pilot and two crew members. As the helicopter made its approach to land on the USS Shreveport, the approach was aborted. As Boyle initiated a right turn, the left cyclic control failed and the aircraft crashed into the sea.[4] Three crew members were able to escape, however Boyle could not and drowned. After the helicopter was recovered, it was determined that the cyclic control had probably failed either because the flight control servos suffered hydraulic fluid contamination, or because the control mechanism was improperly rigged.[5] Therefore, if fault for the accident could be placed, it would probably lie with the Navy due to negligent maintenance practice.

Since Boyle was a military employee suit could not be brought against the U.S. Government.[6] Boyle's father brought suit against the helicopter manufacturer, Sikorsky Aircraft Division of United Technologies Corporation ("Sikorsky"). One issue at trial, which became the primary issue on appeal, involved an allegation of design defect related to the crash-worthiness of the helicopter. This claim was based on the undisputed fact that Boyle had survived the aircraft's initial impact with the water, but drowned before he could escape. It was claimed that Sikorsky had "defectively designed the copilot's emergency escape system; the escape hatch opened out instead of in (and was therefore ineffective in a submerged craft because of water pressure), and access to the escape hatch handle was obstructed by other equipment."[7]

At trial the jury awarded plaintiff $725,000. The District Court denied Sikorsky's post-trial motion for judgment notwithstanding the verdict. Sikorsky then appealed to the Fourth Circuit Court of Appeals, who reversed, finding in part that Sikorsky had satisfied the requirements of the "Military Contractor Defense."[8] Boyle appealed to the U.S. Supreme Court which accepted certiorari and subsequently affirmed the

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3. 487 U.S. at 502. The *Boyle* facts are taken from both the Supreme Court's decision and from a more detailed article by C. Cahoon, *Boyle Under Siege* 59 J. Air L. & Comm. 815, 818-825 (1994).

4. The cyclic control directs the helicopter left, right, forward and backward. When the helicopter was in a descending right-hand turn the failure of the left cyclic rendered it impossible to come out of the right turn.

5. C. Cahoon, *supra* note 3 at 825, n.43.

6. Feres v. United States, 340 U.S. 135 (1950). The *Feres* doctrine holds that injury or death to Armed Service personnel occurring in the course of military service are not covered under the Federal Tort Claims Act.

7. *Boyle*, 487 U.S. at 503.

8. Boyle v. United Technologies Corp., 792 F. 2d 413 (4th Cir. 1986). The Fourth Circuit

Fourth Circuit by a 5 to 4 margin. Justice Scalia delivered the opinion of the majority.

B. The Supreme Court Decision

First, in order to avoid the constitutional rule of separation of powers between Congress and the Judiciary, Scalia recognized that the police powers of states are not superseded "unless that was the clear and manifest purpose of Congress."[9] Federal preemption must therefore be based on constitutional or statutory grounds unless the issue falls within one of the areas that involving "uniquely federal interests,"[10] where the courts may establish what is, in essence, federal common law. The Court held that the procurement of equipment for the Federal Government involves a unique federal interest because holding Government contractors liable in suits between private parties will have a direct effect on the terms of the contracts.[11]

A second reason for allowing preemption without statutory basis is when there is a direct conflict between federal and state law. The Court recognized that military contractor liability under state law would conflict with the Government's discretionary exception under the Federal Tort Claims Act ("FTCA").[12] The Court stated that "the selection of the appropriate design for military equipment to be used by our Armed Forces is assuredly a discretionary function within the meaning of this provision."[13] The Court found that when state law holds Government contractors liable for design defects in military equipment, there may exist a significant conflict with federal policy, and if so, state law will be preempted. The immunity is based on the belief that design decisions involve a balancing of many factors including technical, military, and social considerations, and "specifically the trade-off between greater safety and greater combat effectiveness."[14]

Proponents of the MCD argue the defense is needed to uphold Gov-

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also held that Boyle had failed to meet his burden of proof against Sikorsky to prove fault for the original accident. *Id.*

9. Puerto Rico Dept. of Consumer Affairs v. Isla Petroleum Corp., 485 U.S. 495, 500 (1988) (citations omitted).

10. *Boyle*, 487 U.S. at 504.

11. *Id.* at 506, 507.

12. *Id.* at 510. The FTCA allows suit against the U.S. Government under certain circumstances. See 28 U.S.C. 2680(a). The discretionary function provides:

> Where Congress has delegated the authority to an independent agency or to the Executive Branch to implement the general provisions of a regulatory statute and to issue regulations to that end, there is no doubt that planning level decisions establishing programs are protected by the discretionary function exception, as is the promulgation of regulations.

13. *Boyle*, 487 U.S. at 511.

14. *Id.* The Court in essence is claiming that since Government military contractors work

ernmental immunity for discretionary acts. Placing liability on contractors would result in the increased costs being passed on to the Government, which is exactly what the immunity was intended to prevent. Thus, the defense arises from the principle that when a contractor acts at the direction and under the authority of the Government it is entitled to assert the sovereign immunity of the Government.[15] In the field of military contracts this policy "shield[s] sensitive military decisions from scrutiny by the judiciary, the branch of Government least competent to review them."[16] The Court held ordinary tort law is not meant to apply to Government military design decisions because the Government "is required by the exigencies of our defense effort to push technology towards its limits and thereby incur risks beyond those that would be acceptable for ordinary consumer goods."[17]

The Court declined to expand the *Feres* doctrine, which provides immunity to the Government for injuries suffered by military members incident to their military service.[18] Barring all suits, the Court reasoned, was too broad because it would unreasonably extend to injuries caused by stock products "or by any standard equipment purchased by the Government."[19]

Justice Scalia then adopted the scope of displacement that was used by the Fourth Circuit:

> Liability for design defects in military equipment cannot be imposed, pursuant to state law, when (1) the United States approved reasonably precise specifications; (2) the equipment conformed to those specifications; and (3) the supplier warned the United States about the dangers in the use of the equipment that were known to the supplier but not to the United States. The first two of these conditions assure that the suit is within the area where the policy of the "discretionary function" would be frustrated—i.e., they assure that the design feature in question was considered by a Government officer, and not merely by the contractor itself.[20]

The Court found that Sikorsky had established Governmental approval of "reasonably precise specifications" for the escape hatch. Among nu-

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for the Government and have their plans and specifications reviewed and approved by the Government, they too are entitled protection under the discretionary immunity test.

15. Harduvel v. General Dynamics Corp., 878 F.2d 1311, 1316 (11th Cir. 1989).

16. *Id.*

17. *Id.* (quoting McKay v. Rockwell International Corp., 704 F.2d 444, 449-50 (9th Cir. 1983)). One concern is that most military activities do not involve risks any greater than those which would be accepted by the ordinary consumer. The problem is that the MCD may apply to all Government procured equipment, regardless of the associated risks involved with operation of that equipment.

18. *Boyle*, 487 U.S. at 510 (*citing* Feres v. United States, 340 U.S. 135 (1950)).

19. *Id.*

20. *Id.* at 512.

merous detailed facts regarding the procurement of the helicopter design specifications, there was evidence that Sikorsky and the Navy had many "back-and-forth discussions." The Supreme Court then vacated and remanded the case back to the Court of Appeals to clarify its factual evaluation consistent with their decision. On remand, the Fourth Circuit Court of Appeals held that no reasonable jury could have found for the plaintiff on the facts presented,[21] and held that Sikorsky had established the military contractor defense as a matter of law, and was therefore immune from liability.[22]

III. The Single Process Initiative

Acquisition reform has continuously been at the forefront of Congressional concerns since the mid-1980's. In 1994, however, Congress finally passed the Federal Acquisition Streamlining Act.[23] which was signed into law by President Clinton on October 13 of that year. The Act represents significant federal procurement reform measures, including reform of over 200 different sections of Armed Forces Procurement regulations.[24] On December 8, 1995, Secretary of Defense William Perry issued a memorandum requesting guidance to promulgate rules in order to make certain block changes to existing contracts between the Government and private industry. Using a modification approach of "block change" allows consolidation or elimination of "multiple processes, speci-

21. Boyle v. United Technologies Corp., 857 F.2d 1468 (4th Cir. 1988) (on remand).

22. *Id.* Since the *Boyle* decision was 5 to 4, it is certainly worth mentioning the strong dissent by Justice Brennan, who noted that it was not right that Boyle could sue Sikorsky had Boyle been flying one of its civilian aircraft, but could not maintain a viable action when the helicopter was designed for the Federal Government. Brennan criticized the majority for unauthorized judicial legislating, and pointed out the fact that Government contractors had already extensively lobbied Congress for a defense, which efforts failed to produce any results. *Boyle,* 487 U.S. at 515. He noted that if children playing on a beach were injured or killed by a defective Government helicopter falling out of the sky, they would not have any recourse against the manufacturer. "In my view, this Court lacks both authority and expertise to fashion such a rule, whether to protect the Treasury of the United States or the coffers of industry." *Id.* at 516. Aviation law expert Lee Kreindler stated:

> As the dissenting opinion of Justice Brennan points out, the majority's decision to carve out a new area of uniquely federal interest and then displace state law for no better reason than to prevent what it perceives to be a potential prejudicial impact upon the federal treasury is unprecedented, shocking, and an unabashed act of judicial law-making.

Lee Kreindler, Aviation Accident Law, 7-90, (Matthew Bender, 1989).

23. S.B. 1587, Pub. L. No. 103-355, 108 Stat. 3367 (1994). For a general discussion of the Federal Acquisition Streamlining Act, *See* C.R. Pennington, *Government Contract Law Reform: The Federal Acquisition Streamlining Act of 1994*, 24 Colo. Law. 29 (1995).

24. With the end of the cold war, reform in the military has accelerated at an unprecedented rate. Federal law governing procurement for the Armed Forces is found at 10 U.S.C. 2200, *et. seq.*

fications, and standards in all contracts on a facility-wide basis."[25] The term "Single Process Initiative" defines this new process and applies to existing contracts and to those areas in which the Government can technically accept the proposed changes.

Historically, significant inefficiencies existed because in many contractor facilities, there were several different specifications or processes that were used for similar operations in manufacturing or management; these were caused by different requirements existing for different contracts. The goal of the SPI is to allow implementation of common processes to contractors which "will result in more efficient, consistent and stable processes, with greater ease of contract administration for both contractor and Government, and savings for the taxpayer."[26] In one example involving the commercial engine pilot program, it was determined that use of a regular commercial engines on the C-17A aircraft allowed the Air Force to avoid significant development costs that would have otherwise been incurred on a military-unique engine.[27] It also allowed access to competitive commercial production prices, and lowered support costs with commercial support provisions.[28]

Another example is the Joint Primary Aircraft Training Systems ("JPATS") program which involves replacement of the Air Force and Navy entry-level training aircraft. JPATS acquisition reform allowed a "50 percent reduction in military standards and a 60 percent reduction in contract data requirements."[29]

The first block change modifications formally permitted under the SPI were signed on April 4, 1996. These modifications affect 770 contracts that Texas Instruments signed with the Government. One change which involved paint and primer materials for a metals and fabrication process, deletes four different military specifications, and substitutes in their place Texas Instruments' single process specifications for alternative coatings.[30] Another block change modification substitutes Texas Instruments' standard procedure while deleting 19 different military or service specific specifications.[31]

Another example of the SPI in action involved Boeing's recent offer

25. Department of Defense, Immediate Release No. 647-95 (8 December 1995).

26. *Id.* at 2.

27. Department of Defense, Immediate Release No. 138-96 (15 March 1996). The commercial engine involved in the C-17A program was the Pratt and Whitney F-117 engine.

28. *Id.* at 2.

29. *Id.* The final financial results are not in, however the JPATS program resulted in a 50% savings in program office staffing, and a reduction in development time by 12%. *Id.*

30. Department of Defense, Immediate Release No. 194-96 (8 April 1996). The changes reflected in this paragraph are cited for example purposes only, and do not suggest any type of fault based conduct.

31. *Id.*

to re-engine the B-52H bomber fleet of 94 aircraft with engines leased from Rolls-Royce.[32] Under Boeing's plans each of the aircraft's eight Pratt & Whitney engines would be replaced with four Rolls-Royce commercial engines. Boeing would also provide maintenance for the engines. Boeing would also add auxiliary power units and cockpit displays that are identical as those used on the Boeing 757, and install a power generator similar to that on the Boeing 777. Identical nacelles, struts and engines are used on the Boeing 757.[33]

The Joint Standoff Weapon ("JSOW") development program adopted acquisition reform to streamline its development processes and costs. "Instead of mandating detailed design requirements, backed by tedious Government reviews and approvals of contractor processes and technical data, JSOW program leaders only defined top-level performance requirements."[34] As part of the new streamlined acquisition process, officials now play a broader role as participants in the JSOW Integrated Products Teams. These teams are comprised of military officials, contractor employees, test experts, and suppliers. According to officials, the program has worked so well that it is being extended to other programs.[35]

As a result of the changes to acquisition procedures, the Government will realize substantial savings under the SPI. Government contractors will also reap immediate and significant financial benefits from the SPI due to the fact that the process allows change-overs of contracts currently in force. It is estimated that the bottom line of pure profit could reach 1% to 4% in 1996 alone.[36] Specific programs may experience even larger cost savings, such as the JSOW program, where streamlining is expected to reduce overall costs by 30%.[37]

IV. SPI and the Erosion of the Military Contractor Defense

A. Reasonably Precise Specifications and the Scope of Government Approval

Post-*Boyle* cases consistently apply the three-part test to determine MCD immunity. A brief review of some of those cases is important in order to evaluate and estimate the effect of the Single Process Initiative

32. Stanley W. Kandebo, *Boeing Proposes Reengining B-52s*, Aviation Week & Space Technology, June 24, 1996 at 75.

33. *Id.* at 76.

34. William B. Scott, *Acquisition Reform, Teaming Speed JSOW Development*, Aviation Week & Space Technology, July 22, 1996 at 59.

35. *Id.*

36. Anthony L. Velloci, *Liability Issue Clouds Acquisition Reform Initiative*, Aviation Week & Space Technology, Feb. 5, 1996 at 80.

37. *Supra* note 34.

on the *Boyle* defense. Since the SPI looks to change the role of government in the approval process, only the first *Boyle* element will be affected, namely that which pertains to issues involving Government approval of "reasonably precise specifications."

The first *Boyle* element can be broken down into two subparts: 1) the requirement of Governmental approval; and 2) the requirement of reasonably precise specifications. Some decisions do not distinguish between these two subparts and mistakenly treat them interchangeably. The danger is that a court will use these cases to support one subpart, when in fact, the decision involves the other subpart.

1. Trevino v. General Dynamics Corporation

Trevino v. General Dynamics Corp is one of the leading cases addressing the Governmental "approval" issue.[38] *Trevino* involved the accidental deaths of five U.S. Navy scuba divers in a submarine diving chamber. The accident occurred when a ventilation valve failed to fully open and allow air in when the divers activated the pumps to drain water from the chamber. With no air flowing into the chamber as water was being pumped out, a deadly vacuum was created within the chamber. The families of the divers brought suit against General Dynamics, which was contractor responsible for designing the system. The Navy determined there were four design deficiencies.[39] At trial, the District Court found General Dynamics negligent on seven separate grounds and the Navy negligent on three grounds. The Court allocated 80 % liability to General Dynamics and 20% to the Navy. General Dynamics appealed the District Court's decision on numerous grounds, including its failure to grant General Dynamics immunity under the MCD.

As to the Government "approval" requirement of the first *Boyle* element, the Court of Appeals noted that the *Boyle* decision offered little guidance because the sufficiency of the approval was not at issue in *Boyle*. In *Trevino*, there was evidence that the Navy had merely signed off on a number of the diving chamber specifications, and that there was a lack of serious review and evaluation of the design by the Navy. In light of this, the Court held that 'approval' under the *Boyle* defense requires more than a *rubber stamp*.[40] The Court stated that the defense is meant to protect the Government's discretionary functions, and that only those decisions which truly involve the use of some "policy judgment" are discretionary. The Court reasoned that a "rubber stamp is not a discretionary

38. 865 F.2d 1474 (5th Cir. 1989), *cert. denied*, 493 U.S. 935 (1989).

39. *Id.* at 1477.

40. *Id.* at 1480 (emphasis added).

Transportation Law Journal, Vol. 24 [1996], Iss. 2, Art. 2

function; therefore, a rubber stamp is not 'approval' under *Boyle*."[41]

Trevino recognized that Government approval must be of "reasonably precise specifications." This means that the Government must exercise discretion over all critical design choices. Thus, if the specifications are imprecise or merely general guidelines or standards, then it is the contractor, not the Government, who is left with discretion over the design choices. This is also true when the contractor has flexibility to deviate from the specifications. In both instances the defense will not apply. One key factor is whether the discretionary function lies with the Government officer or with the contractor. The Court summarized its Government "approval" approach as follows:

> The Government exercises its discretion over the design when it actually chooses a design feature. The Government delegates the design discretion when it buys a product designed by a private manufacturer; when it contracts for the design of a product or a feature of a product, leaving the critical design decisions to the private contractor; or when it contracts out the design of a concept generated by the Government, requiring only that the final design satisfy minimal or general standards established by the Government. If the Government delegates the design discretion to the contractor, the exercise of that discretion does not revert to the Government by the mere retention of a right of "final approval" of a design nor by the mere "approval" of the design without any substantive review or evaluation of the relevant design features or with a review to determine only that the design complies with the general requirements initially established by the Government. The mere signature of a Government employee on the "approval line" of a contractor's working drawings, without more, does not establish the Government contractor defense.[42]

The Court also recognized that the purpose of the *Boyle* three-part test was to not disallow the defense "to a Government contractor 'that is itself ultimately responsible for the design defect.'"[43] The bottom line is that the Government must exercise discretion over the design feature in question. The District Court in *Trevino* had found that contracts between the Navy and General Dynamics left design features entirely up to General Dynamics. While the Navy set only certain general performance standards, it left specific details to General Dynamics. The fact that the Navy internal investigation found no formal Navy design review also proved critical to the case.[44] The Court of Appeals affirmed the lower

41. *Id.*

42. *Id.* at 1480.

43. *Id.* at 1481 (quoting Bynum v. FMC Corp., 770 F.2d 556, 574 (5th Cir. 1985).

44. *Id.* at 1487. *See also* n.12. (decisions and accompanying text discussing the importance of the lack of Navy design review. The District Court also found that the design did not conform to the general requirements as provided by the Navy).

court's holding that General Dynamics did not meet its burden in establishing the MCD and was therefore liable to the plaintiffs.

The *Trevino* decision, termed "pro-plaintiff" by many, is on the leading edge of cases restricting the *Boyle* defense.[45] Nevertheless, *Trevino* directly applies the policy behind the MCD as established by the Supreme Court in *Boyle*. The reason that *Trevino* is considered by some as being incorrectly decided, is that other post-*Boyle* cases have taken the defense beyond the scope of *Boyle* and into areas where the Government does not *per se* exercise discretion in approving the reasonably precise design specifications of the failed component. As to the requisite Government approval element established in *Boyle*, numerous cases have chiseled away the strict approval requirements and have allowed the defense even when the contractor exercises the requisite design discretion. The fear of abuse, as reflected in Justice Brennan's dissent in *Boyle*, has come to fruition.

The Government approval standard set out in *Trevino* favors claimants who will seek to avoid the military contractor defense in cases involving the SPI. Under *Trevino* the Government must exercise its discretion in reviewing and evaluating selection of the specific design feature at issue. Any delegation of discretion, retention of "approval" authority, or mere compliance with Government standards will not suffice. As discussed below, commercially-available products (and some commercially-modified products) will not meet MCD muster, especially under the *Trevino* approval standard.

2. Smith v. Xerox Corporation

Smith v. Xerox Corporation[46] involves claims for personal injuries by an Army private after a weapon simulator he was using prematurely exploded and burned him. It was believed that the weapon misfired because of damp conditions. In its analysis, the Court first determined what type of "reasonably precise specifications" were approved by the Government. Even though Xerox could not produce the complete specifications, it did produce a list of specifications, as well as a copy of the Government-mandated performance criteria. The criteria included environmental requirements for temperature, humidity, and salt resistance. Moreover, a former Xerox employee testified the Army had reviewed and approved the drawings and specifications prepared by Xerox, which testimony was not rebutted.[47] Because the Government supplied the rel-

45. Colin P. Cahoon, *Boyle Under Siege*, 59 J. AIR L. & COMM. 815, 843 (1994).

46. 866 F.2d 135 (5th Cir. 1989). It is interesting to note that *Smith* was decided by a three member panel of the Fifth Circuit on the same day that *Trevino* was decided, also by a three member panel of the Fifth Circuit.

47. *Id.* at 138.

evant specifications it wanted the weapon to meet, which were incorporated into Xerox's production contract, and considering the unrebutted testimony, the Court found Xerox had met its burden of proof, as a matter of law, that the Government had approved the specifications.[48]

One weakness of the *Smith* decision is that even though the evidence did not clearly establish Government approval of the specific design specifications, the Court nonetheless created its own standard in order to find MCD immunity. Mere Government-supplied performance standards (such as operation within certain environmental perimeters), without more, clearly falls short of the *Boyle* requirement of Government approval of reasonably precise design specifications.

It is apparent that *Smith* will be favorable to military contractors who defend cases involving the SPI in product design or manufacture because it holds that incorporation of Government-supplied performance requirements into the production contract constitutes "reasonably precise" specifications. Thus, under *Smith*, if the Government sets forth certain product performance requirements, which are adopted by the contractor, the MCD may prevail. Arguably, even if the product is available on the commercial market, under *Smith* the design need not change *per se* from that offered in the civilian market, as long as the performance requirements as incorporated are approved by the Government.[49]

3. Skyline Air Service, Inc. v. G.L. Capps Company

In *Skyline Air Service, Inc. v. G.L. Capps Company*,[50] the insurer of a civilian helicopter that crashed brought a subrogation action against the helicopter manufacturer. Since the helicopter was a former military helicopter, the manufacturer sought immunity under the MCD, and brought a motion for summary judgment which was granted by the trial court and affirmed by the Fifth Circuit Court of Appeals. The issue was whether Bell, the helicopter manufacturer, could invoke immunity under the MCD, even though Bell could not produce the original contract it had

48. *Id.* It is important to note that the *Smith* case never made it to trial. Xerox had brought a Rule 56 motion for summary judgment asking the District Court Judge to decide that the MCD applied as a matter of law. The Federal Rules of Civil Procedure allow the granting of summary judgment when there is no genuine issue as to any material fact, and the facts available are sufficient for a legal determination as a matter of law. It was not originally anticipated that the MCD would be allowed to be determined by the trial judge based on a contractor's Rule 56 motion. *Boyle* unequivocally states that "whether the facts establish the conditions for the defense is a question for the jury." *Boyle*, 487 U.S. at 514.

49. This result is inconsistent with *Trevino*, which was also decided by the Fifth Circuit Court of Appeals. *Trevino* held that design approval without Government review and evaluation, or mere compliance with general Government requirements, do not suffice to meet the MCD. *Trevino*, 865 F.2d at 1480.

50. 916 F.2d 977 (5th Cir. 1990).

entered into with the Government to produce the helicopter. The insurer disputed the sufficiency of the evidence, however, the Court recognized:

> The affidavit and contract. . .show that Bell was required to "strictly adhere to previously established, Government-approved specifications"; to follow Government specified procedures to assure compliance with those specifications; and to design and manufacture the helicopter precisely in accordance with the specifications—"[n]o deviations to the specifications or drawings were permitted without Government approval."[51]

After recognizing the complete lack of evidence opposing the Government's approval of Bell's specifications, the District Court entered summary judgment for Bell.

One significant aspect of the *Skyline* decision is its holding that the MCD permanently attaches to Government-procured aircraft even if the aircraft is subsequently sold as surplus on the civilian market. One problem is that military surplus aircraft often have identical civilian counterpart aircraft which are built by the same manufacturer. In order to lawfully fly in the civilian market, military surplus aircraft must obtain an airworthiness certificate issued by the FAA, which in part, may rely on the type of certificates issued for their identical civilian counterpart aircraft. However, this aircraft may be protected by the MCD, even though both aircraft are built to identical standards; the military surplus aircraft in the civilian market are not protected by the same policy concerns as their purely military counterparts, namely military, technical, and social considerations. Moreover, no policy statement exists that addresses the trade-off between safety concerns and "greater combat effectiveness."[52]

Skyline is significant to products manufactured under the SPI because it extends the MCD to suppliers of military equipment that end up in the civilian market. From a policy standpoint, it is difficult to reconcile when a product is sold to the military before it ends up in the civilian market, yet when the same product is sold directly in the civilian market, liability does arise.[53] Thus, the contractor will not incur risks beyond those for ordinary consumer goods once the product ends up on the civilian market. The once principle concerns involving national defense no longer exist.

Civilian marketability of military-type product enhance their value for both the contractor and the Government, especially when the product is immune from state tort law. When the Government profits commercially by acting as a reseller of military hardware in the private sector and competes with other manufacturers, extending immunity pursuant to the

51. *Id.* at 978.
52. *Boyle*, 487 U.S. at 511.
53. This assumes the defect was not related to a military specific modification.

Transportation Law Journal, Vol. 24 [1996], Iss. 2, Art. 2

Federal Tort Claims Act to nonmilitary commercial activity lacks justification. The balance of interest shifts from "the exigencies of National defense" to the significant state interest of product liability law.

4. Harduvel v. General Dynamics Corporation

Harduvel v. General Dynamics Corp.,[54] involved a claim for wrongful death brought by the wife of Air Force Captain Theodore Harduvel. who was killed when his F-16 crashed while on a daytime training mission in South Korea. After flying into a solid cloud bank, he lost control of his aircraft and crashed into a mountain. There were no eyewitnesses and the plane was completely destroyed. Little physical evidence remained. Both parties thus relied on expert witnesses to establish the cause of the crash.[55]

Plaintiff brought a diversity action in Florida federal court against the F-16's manufacturer, General Dynamics. At trial, plaintiff alleged that a manufacturing defect in the aircraft's electrical wiring system caused by chafing (undesired friction of the wires) caused the electrical "fly-by-wire"[56] system to short out and fail. Plaintiff's experts testified that the F-16 had a history of wire-chafing problems. The plaintiff, by framing the alleged defect as a manufacturing defect as opposed to a design defect, allowed General Dynamics to establish the *Boyle* defense.[57] General Dynamics asserted that Harduvel suffered an adverse reaction to medication he was taking. According to General Dynamics, the medication caused Harduvel to experienced nausea and discomfort, which made him lose control of the aircraft.[58]

The jury returned its verdict in favor of the plaintiff and awarded $3.1 million. General Dynamics immediately moved for judgment notwithstanding the verdict which the District Court denied based upon Eleventh Circuit case law.[59] The District Court decided the motion, how-

54. 878 F.2d 1311 (11th Cir. 1989), *cert. denied,* 494 U.S. 1030 (1990).

55. *Id.* at 1314.

56. The "fly-by-wire" system allows the flight controls to be operated via electrical impulses as opposed to direct cable or hydraulic operation. *Id.* at 1313.

57. *Boyle*, by its own terms, only applies to design defect cases and not to manufacturing defects.

58. *Harduvel,* 878 F.2d at 1314.

59. *Id.* at 1315. The District Court relied on the military contractor defense test set out in Shaw v. Grumman Aerospace Corp., 778 F.2d 736, 745-46 (11th Cir. 1985), where the defense is available to the contractor:

> only if it affirmatively proves: (1) that it did not participate, or participated only minimally, in the design of those products or parts of products shown to be defective; *or* (2) that it timely warned the military of the risks of the design and notified it of alternative designs reasonably known by the contractor, *and* that the military, although forewarned, clearly authorized the contractor to proceed with the dangerous design.

Harduvel, 878 F.2d at 1315.

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ever, before the Supreme Court handed down its decision in the *Boyle* case. When General Dynamics appealed to the Eleventh Circuit, they had the benefit of the *Boyle* decision.

The Eleventh Circuit recognized that, in light of *Boyle*, the distinction between design defects and manufacturing defects "takes on special significance."[60] The jury found that the wire-chafing constituted a manufacturing defect under Florida state law. However, since the general contractor defense was a matter of federal common law, it preempted state law. The Court held that an inference of a manufacturing defect under Florida law was incompatible with the MCD and did not promote uniformity in the law. Accordingly, it fashioned its own definition and held that "the distinction is between an unintended configuration (a manufacturing defect), and an intended configuration that may produce unintended and unwanted results (a design defect)."[61] After reviewing the defect-related facts, the Court concluded that it was the aircraft's design that had "potential for unwanted wire chafing."[62]

In reviewing the Air Force approval of the design, the Court looked to the extensive evaluation of the specifications, blueprints, and drawings, and concluded that the design resulted from the "continuous back and forth" action between General Dynamics and the Air Force. As for the second element of the *Boyle* defense, the Court stated: "To say that a product failed to conform to specifications is just another way of saying that it was defectively manufactured."[63] Since the Court found that a manufacturing defect did not exist under federal common law, it held that the second element was met.

One significant problem arises from this reasoning: the Court overlooks the fact that the contractor maintains the burden of proving the aircraft conformed to the approved specifications. In an accident such as Harduvel's, however, with a product almost completely destroyed, the burden would otherwise remain impossible to meet with direct evidence. Since the third *Boyle* element was also met, i.e., General Dynamics knew no more about the chafing problem than the Air Force and thus had no duty to warn, the Court held that the MCD applied and reversed the District Court's denial of General Dynamics' motion notwithstanding the verdict.

The Court's creation and application of federal common law to define the difference between manufacturing defect and design defect is the most important aspect of the *Harduvel* decision. It also appeared the Court was dissatisfied with the plaintiff's evidence and her burden of

60. *Harduvel*, 878 F.2d at 1317.
61. *Id.*
62. *Id.* at 1318.
63. *Id.* at 1321.

proof. For example, even though the subject aircraft was almost completely destroyed, the jury found a manufacturing defect by inference under Florida law. It is difficult to imagine, however, how a manufacturing defect could otherwise be found if not by inference If a manufacturing defect requires conformity to specifications,[64] the plaintiff must present evidence of the noncompliance as it relates to that specific defect. However, when the product is completely destroyed, the burden cannot be met without some type of additional extrinsic circumstantial evidence.

The importance of *Harduvel*, in light of the SPI, is that it defines and distinguishes manufacturing defects from design defects under federal common law. A product's failure to conform to its specifications "is just another way of saying that it was defectively manufactured."[65] Claimants will continue to argue that defects are one of manufacturing, even if the equipment was manufactured under the SPI. Yet *Harduvel* requires claimants to prove nonconformity by more than mere circumstantial evidence in order to avoid MCD application.

For claimants, *Harduvel* contains valuable insight into the policy behind MCD. For one, the case draws a strict distinction between military and civilian products. As stated by retired Justice Powell, military pilots and aircraft crews:

> are not the 'military doubles of civilian motorists," . . . or ordinary purchasers of consumer products. . . [The MCD] recognizes that one of these risks is the operation of equipment in which safety concerns have been balanced against cost and performance. With respect to consumer goods, state tort law may hold manufacturers liable where such a balance is found unreasonable. In the sensitive area of federal military procurement, however, the balance is not one for state tort law to strike. Although the defense may sometimes seem harsh in its operation, it is a necessary consequence of the incompatibility of modern products liability law and the exigencies of national defense.[66]

5. Bailey v. McDonnell Douglas Corporation

When product specifications do not include specific features of the defect in question, it appears that the first element of *Boyle* cannot be established. In other words, even though specifications may have been approved, they cannot be "reasonably precise" when they do not cover

64. A dangerous inference could arise if the existence of a manufacturing defect *requires* nonconformity to specifications. For example, product specifications may not be entirely complete so that if a product fails due to material defect and there is no adherence to the material specifications because they are vague, the product could still comply with the specifications yet be defective by a manufacturing fault.

65. *Id.* at 1321.

66. *Id.* at 1322.

the defect at issue. *Bailey v. McDonnell Douglas Corporation*,[67] illustrates this point.

In *Bailey*, Air Force Major John Bailey was killed when his F-4 Phantom II aircraft crashed during a landing approach. Bailey's wife brought suit in Texas claiming that the aircraft controls, which apparently locked, were defectively designed. In addition, the bellows canister failed which caused loss of control of the aircraft's pitch movement. The plaintiff claimed the bellows problem was a metallurgic defect, which constituted a manufacturing defect.[68]

The trial court granted summary judgment for defendant based upon the *Boyle* defense. One issue on appeal was whether the contractor met its *Boyle* burden of proof when the specifications were silent as to the defect in question. The Fifth Circuit Court of Appeals held that the contractor did not introduce evidence "to support a finding that the canister's metallurgic content conformed with Government specifications."[69] Thus, the contractor did not sustain its requisite burden of proof, and summary judgment was reversed on the metallurgic defect. The Court acknowledged, however, that the application of the Government contractor defense does not necessarily "only apply to claims labeled 'design defect'."[70] Application of the defense only considers whether the three elements of *Boyle* are met "with respect to the *particular product feature* upon which the claim is based."[71]

The significance of *Bailey* is that unless the specifications clearly delineate the particular defect in issue, then the specifications are probably not "reasonably precise," making it is impossible for the contractor to clear the first *Boyle* element.[72] As discussed above, when it comes to the use of commercial standards under the Single Process Initiative, it is anticipated that many of the specifications will not be reasonably precise, which will result in failure of the *Boyle* defense.

As with all cases brought against Government contractors for defectively designed products, the determination of immunity under the MCD involves a fact intensive review and analysis of the exact nature and extent of the Government's role in approving the "reasonably precise speci-

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67. 989 F.2d 794 (5th Cir. 1993).

68. *Id.* at 796.

69. *Id.* at 800.

70. *Id.* at 801.

71. *Id.* at 802 (emphasis in original).

72. This point is expressed in the decision where the Court states:

> Again, we note that where the Government specifications are silent with respect to the particular feature in issue, *Boyle's* first condition— Government approved *reasonably precise* specifications—would probably be in issue if the defense were applied to that feature.

Id. at 801, n.15 (emphasis in original).

fications." Design defects in products manufactured under the SPI will be decided on a case-by-case basis. It is impossible to determine the long term effect of the SPI on the industry as a whole. Manufacturers will probably see an increase in premiums for design defect liability insurance covering products manufactured under the SPI. Yet, there can be little doubt the SPI will erode the MCD, and that erosion could be significant.

For example, as discussed above, the SPI caused a deletion of Government standards and specifications in the C-17A commercial engine program, the JPATS program and the Texas Instruments block change. Clearly the shift from Government-controlled standards to those of the industry contractors will effect the application of MCD. If there is a design defect in one of the Texas Instruments' specifications which replaced the Government's own specification, it would be difficult for TI to convince a court that the Government seriously reviewed and approved TI's specifications, while at the same time the Government specifications were being deleted. Additionally, with the stroke of a pen, changes that affected 700 contracts were instantly implemented. Thus, it is highly unlikely that any significant review or modification to any of these 700 contracts ever took place.

The SPI's elimination or replacement of the Government's previously approved specifications of contractor procedures will result in a serious erosion of the MCD Government-approval element. The importance here is that with the reduced application of military standards, and a strong shift toward commercial processes, the Government-approval element of the MCD application may disappear, which can cause the defense to fail, and the umbrella of immunity to collapse.

B. Commercially Available Equipment

The strongest erosion of MCD will occur in those areas where contractors adopt commercial specifications, especially where commercial products are used which are also available on the civilian market. A number of cases reflect judicial reluctance to extend the MCD to commercial products that are bought and used in the military.

In re Hawaii Federal Asbestos Cases,[73] held that the military contractor defense was not available to a manufacturer of asbestos insulation that was sold both to the Navy and commercial buyers. Dust from the insulation caused asbestosis and cancer in hundreds of military and civilian workers. The Court did not consider the insulation to be "military equipment" because it was "not manufactured with the special needs of the military in mind," and the Navy was "a relatively insignificant purchaser of products that were primarily designed for applications by pri-

73. 960 F.2d 806 (9th Cir. 1992).

vate industry."[74] Therefore, the Court held, *Boyle* did not provide authority to displace state tort law.

> If, for example, a federal procurement officer orders, by model number, a quantity of stock helicopters that happen to be equipped with escape hatches opening outward, it is impossible to say that the Government has a significant interest in that particular feature. That would be scarcely more reasonable than saying that a private individual who orders such a craft by model number cannot sue for the manufacturer's negligence because he got precisely what he ordered. . . [I]f the Government contractor defense is to prohibit suit against the manufacturer whenever *Feres* would prevent suit against the Government, then even injuries caused to military personnel by a helicopter purchased from stock. . . *or by any standard equipment purchased by the Government, would be covered.*[75]

In addition, the Ninth Circuit held that the policy supporting Boyle did not exist in *In re Hawaii.* The policy judgments made by the manufacturer were not specifically made for the military, but for the manufacturer's commercial customers in the private sector. The Court recognized this:

> The contractor, furthermore, already will have factored the costs of ordinary tort liability into the price of their goods. That they will not enjoy immunity from tort liability with respect to the goods sold to one of their customers, the Government, is unlikely to affect their marketing behavior or their pricing.[76]

In *Nielsen v. George Diamond Vogel Paint Co.*,[77] the Ninth Circuit rejected the MCD for damages allegedly arising from inhalation of paint fumes by an employee of the Army Corps of Engineers. The Court recognized that manufacture of the paint did not involve any "special military purpose,"[78] as the paint was designed for civilian use. Thus, the MCD does not apply to consumer products that are purchased by the armed forces, including (as recognized in *Boyle*), standard and stock equipment. In these instances, there is simply a lack of Government involvement in approving reasonably precise specifications, and no significant conflict with state tort law.

Under the SPI, when the Government accepts a contractor's shift from military-type specifications and/or manufacturing procedures, to commercial common processes, the issue will arise as to whether or not the new procedure constitutes acceptance of reasonably precise specifications sufficient to satisfy the first *Boyle* element. First, the design feature

74. *Id.* at 812.
75. *Id.* at 811, *quoting Boyle*, 487 U.S. at 510 (emphasis in original *In re Hawaii* opinion).
76. *Id.* at 811.
77. 892 F.2d 1450 (9th Cir. 1990).
78. *Id.* at 1453.

in question must be a unique specification for military purposes. It cannot merely repeat a specification that was already developed for the civilian market. In other words, even though the Government approves use of commercial specifications, if those specifications are already used in the civilian market, there is nothing military-unique about them, and the *Boyle* defense should fail. Second, as recognized in *In re Hawaii*, the original design policy judgment may be made for private industry application and not for specific military needs. Whether or not the Government approves previously-adopted private industry standards is essentially no different than purchasing stock or standard equipment which, as unequivocally noted in *Boyle*, is not subject to the MCD.

Finally, if a contractor designs and manufactures a product it believes complies with state tort standards, and the military approves the products design without change, no significant conflict would arise between federal military policy and state tort law because the contract specifications are not different than the tort standards. Therefore, the case would not be pre-empted under *Boyle.*

C. Modified Commercially Available Equipment

It is anticipated the SPI will cause an increase in cases involving products that are both manufactured for civilian consumer use, but are also modified for military use. When this occurs, the application of the MCD will depend upon both the facts of each case and the jurisdictional law applied. For example, in *Oliver v. Oshkosh Truck Corp.*,[79] suit was filed against the manufacturer of a military MK-48 truck which exploded after impact with another vehicle during the Gulf War. Even though the vehicle was commercially available, its development was based on military considerations, and thus it was considered military equipment for application of the MCD. The Court held that the underlying facts supported the manufacturer's position that the Government approved reasonably precise specifications for military use.[80] The Court noted that "[i]f the performance specifications were such that Oshkosh could *not* 'comply with both its contractual obligations and the state-prescribed duty of care,' then a significant conflict exists."[81] The Court found that the Marine Corps role was extensive throughout the testing and contract specifications, and hence, there existed a significant conflict with state law.

In *Augustine v. Bell Helicopter Textron, Inc.*,[82] plaintiffs decedents

79. 911 F.Supp. 1161 (E.D. Wis. 1996).
80. *Id.* at 1175.
81. *Id.* at 1170 (citation omitted) (emphasis in original).
82. 922 S.W.2d 287 (Tex. Ct. App. 1996).

were killed when flying a UH-1N helicopter that crashed during training exercises in California. Suit was brought in Texas state court alleging a design defect in the engine driveshaft system. The manufacturer moved for summary judgment based on the MCD. In reversing the trial court's granting of summary judgment, the Texas Court of Appeals held that Bell did not establish, as a matter of law, the MCD. Bell had originally developed the twin-engine helicopter for civilian use, but was called to develop a militarized version of it for the Vietnam War. The Court recognized that Bell was involved with certain design changes, but none of the changes involved the main driveshaft. The Court noted "acceptance by the Air Force of Bell's design of the main driveshaft certainly does not *per se* constitute a discretionary design choice or 'approval' as contemplated by *Boyle*."[83] The Court concluded that factual issues surrounding the application of the MCD warrants jury determination. Hence, in cases where 1) commercially-available products are modified for military use; 2) the modification to the specific feature in question causes a significant conflict with state tort law; and 3) the elements of *Boyle* are met, the MCD will apply.

D. SPI AND THE DUTY TO WARN

Even though *Boyle* did not deal with state tort "failure to warn" claims, it has been used to guide courts in determining federal MCD preemption of such claims.[84] It is therefore important to distinguish the *Boyle* test from the state tort "duty to warn" law. The third element of *Boyle* requires the contractor to warn the Government about dangers in the equipment of which they are aware but the Government is not. The purpose of this policy is to encourage full disclosure to the Government so that the Government can be fully informed to use it's discretion in selecting product design. Tort law concerning "failure to warn," on the other hand, is intended to protect users and consumers from unreasonably dangerous products. When the MCD is established with respect to design defect claims, this does not in itself encompass "failure to warn" claims. "Simply because the Government exercises discretion in approving a design does not mean that the Government considered the appropriate warnings, if any, that should accompany the product."[85]

The role of the Government must also be substantial in "failure to warn" cases. In other words, when warnings are left to be provided by the contractor without Government discretion there will not be a significant conflict between the federal contract and state tort law because the

83. *Id.*
84. *See generally* Tate v. Boeing Helicopters, 55 F.3d 1150, 1156 (6th Cir. 1995).
85. *Id.* at 1156.

Government does not play any role in the warning process. In *In re Joint E. & S. District New York Asbestos Litigation*,[86] the plaintiffs moved to strike the defendant manufacturer's military contractor defense by claiming that there was no significant conflict between the specifications and the state tort law duty to warn. The Second Circuit Court of Appeals reversed the trial court's granting of the motion, holding that MCD factual issues existed. With regard to the duty to warn issue, the Court stated:

> [The defendant] must show that the applicable federal contract includes warning requirements that significantly conflict with those that might be imposed by state law. Moreover, it seems clear to us that *Boyle's* requirement of Government approval of "reasonably precise specifications" mandates that the federal duties be imposed upon the contractor. The contractor must show that whatever warnings accompanied a product resulted from a determination of a Government official . . . and thus that the Government itself "dictated" the content of the warnings meant to accompany the product. . . Put differently, under *Boyle*, for the military contractor defense to apply, Government officials ultimately must remain the agents of decision.[87]

Tate v. Boeing Helicopters[88] set forth its own elements for preemption of failure to warn claims:

> When state law would otherwise impose liability for a failure to warn of dangers in using military equipment, that law is displaced if the contractor can show: (1) the United States exercised its discretion and approved the warnings, if any; (2) the contractor provided warnings that conformed to the approved warnings; and (3) the contractor warned the United States of the dangers in the equipment's use about which the contractor knew, but the United States did not.[89]

The "duty to warn" issue is certain to arise in cases where military products are either designed, manufactured, or sold under the SPI, especially for those products that were already available on the commercial market. Product warnings will, in many cases, have already been taken care of in the civilian consumer market. Unless the Government determines and dictates the content of the warnings,[90] or exercises its discretion and approves the contractor's warnings,[91] the MCD will fail. In addition, if the contractor fails to provide conforming warnings or fails to warn of information known to the contractor and not to the government, the MCD defense will also fail.

86. 897 F.2d 626 (2nd Cir. 1990).
87. *Id.* at 630 (citations omitted).
88. 55 F.3d 1150 (6th Cir. 1995).
89. *Id.* at 1157.
90. *See generally In re Joint E. & S.*, 897 F.2d 626.
91. *See generally Tate*, 55 F.3d 1150.

E. APPROVAL THROUGH KNOWLEDGE AND CONTINUED USE

It is also suggested that evidence of the Government's approval is established by its continued use of the product after it is made aware of the alleged defect. Two cases are worth mentioning and distinguishing. First, in *Ramey v. Martin-Baker Aircraft Co.*,[92] the plaintiff was injured while working on an F-18 military jet fighter after the ejection seat accidentally fired. The alleged defect had existed for years and the Navy was aware of the defect, but determined that it was not so significant as to warrant change. The Court held that the Navy's continued use of the system helped establish its design approval, and therefore the contractor was entitled to MCD immunity.

The second case, *Dowd v. Textron, Inc.*,[93] involved claims for wrongful death arising from the crash of a Navy helicopter which was allegedly defective in design. Regarding the "approval" element of the MCD, the Fourth Circuit Court of Appeals held that:

> [t]he length and breadth of the army's experience with the [product] — and its decision to continue using it — amply establish Governmental approval of the alleged design defects.[94]

Contrary to what at least one author expresses,[95] *Ramey* and *Dowd* cannot be used for authority supporting the proposition that Government knowledge of defect and continued use constitutes "approval." First, both cases were decided in 1986 which is two years before the Supreme Court rendered its *Boyle* decision. *Boyle* unequivocally requires approval of the "reasonably precise specifications," and not mere continued use with knowledge. Second, *Ramey* and *Dowd* had applied the *Feres* doctrine as the policy supporting the MCD immunity. However, the Supreme Court in *Boyle* expressly rejected the *Feres* doctrine, and instead adopted the policy behind the discretionary immunity exception under the Federal Tort Claims Act.[96] Thus, in adopting the requisite element of Government-approval of reasonably precise specifications, *Boyle,* in effect, overrules any other "approval" test. The implicit approval with continued use and knowledge as contained in *Ramey* and *Dowd* must fail for SPI products as well, in light of *Boyle,* because that approval has abso-

92. 874 F.2d 946 (4th Cir. 1989).

93. 792 F.2d 409 (4th Cir. 1986).

94. *Id.* at 412.

95. *See* Colin P. Cahoon, *Boyle Under Siege,* 59 J. AIR L. & COMM. 815 (1994), where the author cites *Ramey* and *Dowd* as support that continued use after defect knowledge is sufficient to constitute approval. *Id.* at 836-37. This article was published six years after the *Boyle* decision.

96. *Boyle,* 487 U.S. at 510.

Transportation Law Journal, Vol. 24 [1996], Iss. 2, Art. 2

lutely nothing to do with specific review and approval of design specifications.

V. SPI AND THE POLICY OF THE MILITARY CONTRACTOR DEFENSE

The SPI sheds new light on the numerous policies underlying the MCD. First, the policy that justifies different treatment between military products and consumer products purchased in the private commercial industry will erode under the SPI. The "significant conflict" element between federal contracts and state tort law will be weakened because the shift to commercial processes brings the design and manufacturing standards of military products closer to that of private industry. Second, the policy that Government contractors need protection to push technological limits, as required by the exigencies of national defense through greater combat effectiveness, and incur risks beyond those acceptable for ordinary consumer goods, is no longer viable when the military equipment is commercially available, and where the risk is essentially the same. The MCD is not a necessary result of the incompatibility of modern product liability law and defense needs, when the design and/or manufacturing processes are themselves compatible. However, national defense objectives, including increased risk, remain viable objectives for military-unique equipment.

Third, the policy to shield the Government's sensitive military equipment decisions from judicial scrutiny is tarnished when design and manufacturing choices are based on common processes and purchases of commercially available equipment. Decisions involving the SPI in design or manufacture may be de-sensitized. Fourth, the policy not to have product liability costs ultimately passed on to the Government appears valid under SPI, except in light of the significant savings enjoyed by the Government via SPI implementation. In other words, since the Government is saving so much money, from a public policy standpoint, maybe some of those savings should be used in favor of military personnel injured or killed by defective products. Lastly, the policy that the contractor is innocent when its only role is the proper performance of a plan approved by the Government, that is, where the Government is actually at fault, may no longer be a legitimate policy to invoke the MCD for certain SPI products. The contractor's role under the SPI is much more significant, as they implement many of their own specifications, standards, testing and manufacturing processes, which replace previous Government guidelines and specifications.

VI. CONCLUSION

It is anticipated that in light of the substantial projected savings to

the Government and significant increased profits to Government contractors, the switch to the SPI will run rampant throughout the military contractor industry. One concern is that with the anticipated large increase in competitive bidding, combined with the shift in design discretion from the Government to the contractors, there is an increased possibility that safety will take a back seat to cost-efficiency. Continued application of the MCD to "protect" the contractors certainly will not be an incentive for safety, as would the potential for product liability. Yet, the implementation of the SPI will not necessarily strip the Government contractors of MCD immunity.

The future review by courts of the MCD to SPI products must include a strong understanding of the original policy behind of the *Boyle* defense, as reflected in *Boyle* and subsequent cases. The contractor must be acting under the direction and authority of the Government, whose discretion includes a balance of safety and combat effectiveness. *Boyle* considers the "back and forth discussions" between the Government and the contractor with regard to specification review and approval. When the Government merely requires that certain guidelines be met (such as performance guidelines) it is the contractor, and not the Government, who is left with unprotected discretion. Thus, the delegation of too much discretionary authority to the contractor under the SPI will act to inhibit the availability of the MCD immunity.

In certain circumstances, where strict Government review and approval is needed for *unique* military products which in fact require a policy to balance decisions, and where the *Boyle* elements are met, the MCD will be available. However, under the SPI, contractors who use identical standards and specifications for products that are manufactured for both Government and civilian use, should not be allowed MCD protection as the Government is just *one* customer and not the *only* customer.