

IN THE
UNITED STATES COURT OF APPEALS

UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT
FOR DISTRICT OF COLUMBIA CIRCUIT

SEP 23 2005

RECEIVED

TRIPOLI ROCKETRY ASSOCIATION, INC. and
NATIONAL ASSOCIATION OF ROCKETRY,

Appellants,

v.

BUREAU OF ALCOHOL, TOBACCO & FIREARMS,

Appellee.

APPELLANTS' REPLY BRIEF

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TABLE OF CONTENTS

SUMMARY OF ARGUMENT	1
ARGUMENT	4
A. Standard of Review	4
B. ATF's Interpretation of the Organized Crime Control Act of 1970 Flatly Contradicts the Statute	5
C. ATF's Classification of ACP as an Explosive is Contradicted by the Record	9
1. The Definition of Deflagration	10
2. The Actual Data	11
3. Bare Opinion and the Alleged Scientific Consensus	15
CONCLUSION	18

TABLE OF AUTHORITIES¹

CASES

<i>Ball v. Memphis Bar-B-Q, Inc.</i> , 228 F.3d 360 (4 th Cir. 2000)	5
<i>Chevron U.S.A., Inc. v. Natural Resources Defense Council</i> , 467 U.S. 837 (1984) ..	4, 5, 8
* <i>Motor Vehicles Manufacturers Assn' v. State Farm Mutual Automobile Insurance Co.</i> , 463 U.S. 29 (1983)	14
* <i>National Gypsum Co. v. EPA</i> , 968 F. 2d 40 (D.C. Cir. 1992)	1, 2, 14, 18
<i>National Mining Ass'n v. Department of Interior</i> , 177 F. 3d 1 (D.C. Cir. 1999)	12
<i>Tripoli Rocketry Assn. v. U.S.B.A.T.F.</i> , No. 00-273 (D.D.C. filed Feb. 11, 2000)	13
* <i>United States v. Agrillo-Ladlad</i> , 675 F.2d 905 (7 th Cir. 1982)	7, 9
* <i>U.S. v. Markey</i> , 393 F.3d 1132 (10 th Cir. 2004)	8, 9

STATUTES AND REGULATIONS

* 18 U.S.C. § 841(d)	passim
* 18 U.S.C. § 844(j)	6, 7, 9

¹ Authorities chiefly relied upon are marked with an asterisk.

SUMMARY OF ARGUMENT

Appellants Tripoli/NAR argued syllogistically in their opening brief that: (1) Title XI of the Organized Crime Control Act of 1970 allows appellee ATF to exercise licensing power over something as an “explosive” only if its “primary or common purpose” is to “function by explosion;” (2) something functions by explosion only if it functions by deflagrating or detonating; (3) the primary and common purpose of APCP is as a rocket propellant (especially in model rocket motors); (4) APCP-based rocket motors function by burning in a controlled manner with a chemical reaction speed much less than that necessary for either deflagration or detonation, using ATF’s own definitions of these two terms and uncontroverted scientific data in the administrative record; and (5) APCP cannot therefore be an “explosive.” Appellants pointed out that every scrap of data in ATF’s administrative record supports its position that the APCP in rocket motors burns at a rate far too slow for either deflagration or detonation, and that absolutely no data in the record supports ATF. Appellants cited to a remarkably similar case, *National Gypsum Co. v. EPA*, 968 F. 2d 40 (D.C. Cir. 1992) where, as in the case at bar, an agency’s “scientific” decision was based on unsupported assumptions and was contradicted by all of the actual scientific data in the record.

As to number (1) above, ATF concedes that the statutory limit to its licensing power quoted by Tripoli/NAR applies. However, ATF’s brief is premised on a broad interpretation of that limit (the definition of “explosives”) that would give it sweeping new power -- enough for it to require a license for every farm, truck, automobile, and kitchen in the United States simply because they contain gasoline, cleaning solvents, and other ordinary substances that could, under some hypothetical conditions of temperature

and pressure not normally present, burn fast enough to deflagrate. Such sweeping power by ATF over the activities of ordinary, law-abiding citizens (including, here, thousands of model rocket enthusiasts), is exactly what Congress took pains to prevent when it carefully limited the civil definition of “explosives.” ATF’s unrestrained interpretation of that term flunks *Chevron* step one because it is flatly contrary to the plain statutory language and legislative history.

ATF does not take issue with number (2) above (that something functions by explosion only if it functions by deflagrating or detonating), or with number (3) (that the primary and common purpose of APCP is as a rocket propellant, especially in model rocket motors).

ATF appears to take issue with number (4) (that the APCP in rocket motors functions by controlled burning), and with number (5), the ultimate issue in this case, the definition of “explosives.” But notably, ATF does not contest the accuracy of any of the actual data cited by Appellants in argument number (4), data compiled by the U.S. Army; nor does it cite to any contrary data or offer any different definition of deflagration. Finally, ATF altogether ignores *National Gypsum v. EPA*.

Ultimately, ATF is reduced to simply begging for deference. It urges the Court to ignore the proverbial “elephant in the room” (the actual scientific data about how APCP-based rocket motors function), and to defer to a novel agency theory that actual scientific data are not necessary to describe and reach conclusions about natural processes, because a few, unsupported and highly generalized “opinions” about rocket propellants from authoritative sources (ATF refers to a supposed “consensus”) are all that count. Thus, ATF concedes that it “certainty *could have* conducted experiments or otherwise

researched burn rates² specific to APCP used in model rocket motors to reach its conclusion,” ATF Brief at 15 (emphasis added), but says it was not required to do so because “the APA does not require that an agency produce any particular evidence or data to support its conclusions.” ATF Brief at 14. ATF characterizes its lack of supporting scientific data about APCP in hobby rockets as a “quibble,” ATF Brief at 16, and argues that Appellants’ focus on actual scientific data about burn rates in model rocket motors is “myopic.” ATF Brief at 17.

But even in a setting where deference is afforded administrative agencies on scientific disputes, bare, unsupported opinions cannot negate actual scientific data. Scientific opinions are supposed to be based on scientific data, not thin air. To make matters worse, ATF obscures even the supposedly contrary opinions it cites. Most do not discuss APCP at all. Others (like the National Fire Protection Association document) merely suggest (but do not expressly state) what Appellants readily conceded: that APCP poses a *fire* hazard because, under some extreme conditions of temperature and pressure, not characteristic of rocket motors, APCP will deflagrate (but just barely). The same can be said of gasoline stored in a lawnmower. But that is not the statutory test, which focuses solely on how APCP-based model rocket motors function.

Having apparently failed to conduct actual tests of APCP to confirm or discredit those conducted by the Army, ATF blames Appellants for its shortcomings. ATF argues that it should prevail because, putting the burn rate data in ATF’s administrative record aside (which, of course, we cannot do), “appellants have failed to produce any evidence

² As is noted in Footnote No. 5, *infra*, Appellants conducted their own APCP burn tests, which *confirmed* those of the U.S. Army, showing no deflagration. Appellants do not know whether ATF tried to conduct tests of its own, but if it did, it did not enter the results in the administrative record.

to rebut the notion that *when confined*, APCP deflagrates.” ATF Brief at 13 (emphasis added). Tripoli/NAR had no such obligation if ATF’s own administrative record supported them, not ATF, and in any event, the question is not whether APCP deflagrates when confined under some hypothetical, unusual conditions, but whether it deflagrates when functioning in hobby rocket motors.

There is more at stake here than the regulation of hobby rocket motors. ATF can succeed here only if judicial deference allows an agency to ignore both statutory language and relevant scientific evidence in the administrative record that is authoritative and uncontradicted. If ATF can succeed here, nothing stops it from asserting licensing and regulatory power over dozens of other common activities undertaken routinely by law-abiding citizens, and modern science will no longer be needed to support its technical decision-making.

ARGUMENT

A. Standard of Review

ATF pleads for deference to its interpretation of the definition of “explosives” in 18 U.S.C. § 841(d) of Title XI of the Organized Crime Control Act of 1970 under established doctrine in *Chevron U.S.A., Inc. v. Natural Resources Defense Council*, 467 U.S. 837 (1984) (“*Chevron*”). It is far from clear what interpretation ATF is referring to, because its brief makes little effort to link its boilerplate *Chevron* argument to some particular agency interpretation of the “explosive” definition. However, from the structure of ATF’s brief, it would appear that ATF is asking for deference to its opinion that “[c]ontrary to appellants’ narrow perspective, the OCAA neither permits nor requires ATF to classify substances based on particular applications, benign or otherwise,” and

that ATF's assessment properly "depends on APCP's generic properties under a broad range of conditions, not the limited, controlled and particular uses of APCP by appellants' members." ATF Brief at 7. While there is a substantial question whether ATF is entitled to *Chevron* deference to what is only a pure litigating position, *Ball v. Memphis Bar-B-Q, Inc.*, 228 F.3d 360 (4th Cir. 2000), the Court need not reach the issue whether *Chevron* applies because, even assuming *Chevron* does apply, ATF's interpretation clearly flunks *Chevron* step one. This is explained further below.

ATF also argues that its decision classifying APCP as an "explosive" involves the application of technical, engineering and scientific expertise and, in such circumstances, deference to its classification decision is appropriate. Appellants do not quarrel with this hornbook principle of administrative law but, as explained below, in this case ATF did not actually apply any technical, engineering, or scientific principles in its decision; instead, it acted in unabashed opposition to them. Judicial deference cannot save ATF here.

B. ATF's Interpretation of the Organized Crime Control Act of 1970 Flatly Contradicts the Statute

ATF apparently takes the position that it may classify a substance as an "explosive" under 18 U.S.C. § 841(d) of the Organized Crime Control Act if it has the generic property of being capable of exploding (*i.e.*, deflagrating or detonating) under a hypothetical range of uncommon conditions, and that its classification need not depend on any particular application. ATF's interpretation that the particular functional uses of a substance it wishes to regulate may be ignored is flatly contradicted by the plain language of the statute and flunks *Chevron* step one.

The applicable civil definition of “explosives” is “any chemical compound, mixture, or device, *the primary or common purpose of which is to function by explosion.*” 18 U.S.C. § 841(d) (emphasis added). As can be readily seen, the definition focuses on the “primary or common purpose” of the substance in question, and application of the definition hinges on whether the substance “function[s] by explosion” when used for its primary or common purpose. This narrow, civil definition stands in stark contrast with the much broader criminal definition in 18 U.S.C. § 844(j) of the Organized Crime Control Act of 1970, which addresses malicious uses of explosives. Section 844(j) defines “explosive” by listing various specific substances and then adding “any chemical compounds, mechanical mixture, or device that contains any oxidizing and combustible unit, or other ingredients, in such proportions, quantities, or packing that ignition by fire, by friction, by concussion, by percussion, or by detonation of the compound, mixture, or device, or any part thereof *may cause a explosion.*” (Emphasis added.) As is apparent, this definition focuses on whether the substance “may cause an explosion” when ignited and makes no reference to the primary or common purpose of the substance in question.³

In short, the statute is clear on its face: the narrow civil definition asks whether the substance functions by explosion when used for its primary or common purpose; while the broader criminal definition asks simply whether the substance “may” explode when ignited, regardless of whether its primary or common purpose is actually to function by explosion.

³ It is notable that ATF’s administrative record is devoid of any real-world examples of APCP being used by criminals to *maliciously* cause an explosion, most likely because APCP is so poorly suited for such purposes.

The two contrasting definitions and the legislative history are extensively (and accurately) explored in *United States v. Agrillo-Ladlad*, 675 F.2d 905, 908-911 (7th Cir. 1982), *cert. denied*, 459 U.S. 829 (1982) (“Agrillo”). Two versions of the bill that was to become the Organized Crime Control Act of 1970 were introduced: one (by House Judiciary Chairman Celler) with a broad definition of explosive (like that of 18 U.S.C. § 844(j)) and another (the Administration bill) with a narrow definition (like that of 18 U.S.C. § 841(d)). At the hearings, there was grave concern that, if the broad definition was used, common flammable substances like gasoline, cleaning fluids, and solvents would fall within the definition, with the result that many thousands of farmers and ordinary people engaged in lawful activities would be subject to licensing and regulation for mere possession. As House Judiciary Chairman Celler observed, “[w]e had chemical experts testify that ‘explosives’ is a pervasive term.... If the word explosive is so pervasive it could be extremely difficult to enforce a section proscribing mere possession.”⁴ (Quoting Agrillo at 909.) The solution adopted was to enact two definitions -- a narrow one (as proposed by the Administration) for civil licensing purposes that, by focusing on whether a substance functioned by explosion when used for its primary or common purpose, excluded ordinary lawful activities like farming, having an automobile, using a kitchen, or cleaning stains, from the explosives licensing provisions of the bill; and a broad definition (as proposed by Chairman Celler) for criminal purposes, that allowed criminal prosecution for the malicious use of a broad

⁴ ATF briefly references these hearings at page 13, note 9 of its brief, seemingly to suggest that “propellant explosives” fall within the narrow, civil definition of explosive. But, as indicated, these kinds of presentations were clearly directed at the broader definition.

range of substances that could be made capable of exploding under the right malicious circumstances.

From the plain text of the statute, and the legislative history, it is absolutely clear that Congress has spoken to the precise question at issue here: whether, as ATF apparently claims, a substance is subject to civil licensing as an explosive merely because it can be painstakingly processed and maliciously packaged in such a way as to deflagrate under a possible range of uncommon conditions. Congress said it may not. *U.S. v. Markey*, 393 F.3d 1132, 1136 (10th Cir. 2004) (“Congress was clear and unambiguous in defining an explosive under § 841(d); the ordinary meaning of the terms ‘primary or common purpose’ connotes a device’s intended and actual use -- not its actual capability”).

If ATF were correct, it would have licensing power over every farm, automobile, truck, and kitchen in the United States merely because they contain gasoline, cleaning solvents, flares, and other ordinary substances that could, under some hypothetical conditions of temperature and pressure not ordinarily present, burn fast enough to deflagrate. No one would dispute that many of these common substances, like matches, for example, can be made to explode when ignited in a pipe bomb. Preventing regulation by ATF over tens of millions of ordinary, law-abiding citizens, including in this case thousands of law-abiding hobby rocket enthusiasts, is exactly what Congress took pains to prevent when it carefully defined “explosives.” ATF’s expansive interpretation is inconsistent with *U.S. v. Markey, supra*, and flunks *Chevron* step one because it is flatly contrary to the plain statutory language and legislative history.

In contrast, the interpretation advanced by Appellants, that a substance is subject to licensing as an explosive only if it functions by explosion when used for its primary or common purpose, is consistent with *U.S. v. Markey, supra*, and is precisely the meaning intended by Congress.⁵

C. ATF's Classification of APCP as an Explosive is Contradicted by the Record

ATF does not dispute that the primary and common purpose of APCP is as a propellant in rocket motors, especially hobby rocket motors. It has no other primary or common purpose. Therefore, in accordance with the above analysis of the term “explosive,” whether APCP is an explosive depends solely on whether it functions by explosion (deflagration or detonation) when used in rocket motors (especially hobby rocket motors). ATF also agrees that APCP does not detonate, and that whether APCP deflagrates depends on how fast it burns. ATF Brief at 12.

Tripoli/NAR pointed out in their opening brief (at 18-19) that the actual data in ATF's administrative record (the official U.S. Army Encyclopedia of Explosives) supports its position that the APCP in rocket motors burns at a rate far too slow for deflagration (or detonation), and that absolutely no data in the record supports ATF. ATF has no rational answer to this argument. ATF does not contest the accuracy of any of the

⁵ ATF argues that Tripoli/NAR's reliance on the contrast between the broad and narrow definitions to show Congress intended to limit the civil regulation of explosives “makes no sense” because “the fact that APCP, or any other material, satisfies the separate definition of an explosive in section 844(j) in no way suggests that the same material cannot also meet the definition of an explosive under Section 841(d).” ATF Brief at 18. This argument is specious. ATF offers no reference to the actual statutory language, no reference to any legislative history, no discussion of any case law (such as *United States v. Agrillo-Ladlad* or *United States v. Markey*), and no elaboration of the convoluted logic that led it to reason that a substance which falls within a broad definition will also fall within a narrower one.

data cited by Tripoli/NAR; it does not cite to any contrary data; and it does not offer any different definition of deflagration.

ATF's rambling argument is hard to follow, but at some places it appears to address the scientific data cited by Tripoli/NAR, while at other places it tries to sidestep that data by arguing that it was entitled to ignore the actual scientific data and instead to rely on various opinions and an alleged scientific consensus. Appellants will address (in subsections 1. and 2. below) the first line of argument, and then follow with the second. ATF's obfuscation is apparent when each reference in the administrative record is carefully examined.

1. The Definition of Deflagration

Tripoli/NRA's argument depends on the scientific propositions -- not disputed by ATF -- that the oxidation (burn) in a deflagration proceeds at a speed that is on the order of meters per second, and that any oxidation (burn) at a much slower speed (millimeters per second) is not deflagration, but burning. Tripoli/NAR Brief at 10-11. Rather than dispute the scientific accuracy of this authoritative proposition from its own administrative record, ATF argues that "it has not adopted, by regulation or otherwise, any such 'burn rate threshold.'" ATF Brief at 13. However, the quantitative line between deflagration and burning has to be drawn somewhere, and even an agency experienced in such matters may not simply set it by fiat. Tripoli/NAR's use of these burn rates to define deflagration comes directly from ATF's administrative record, most specifically, the "Chemistry of Pyrotechnics" at Tab 11. The administrative record has no other quantitative definition, and ATF's brief suggests none.

ATF also argues that these burn rates are just general descriptions, not firm thresholds. ATF Brief at 13, 9. Of course; that is undoubtedly why they are expressed in orders of magnitude (kilometers per second, meters per second, millimeters per second). But, the data cited by Tripoli/NAR show that the *fastest* burn rate for APCP in rocket motors is a *factor of ten* slower than the deflagration threshold. Tripoli/NAR Brief at 18, citing to Tab 10 of the administrative record. This is not a close question. ATF's point is therefore irrelevant.

2. The Actual Data

As indicated above, Tripoli/NAR relied on data from ATF's own administrative record to show that the fastest burn rate for APCP in rocket motors is a *factor of ten* slower than the deflagration threshold, and therefore that APCP does not function by explosion in rocket motors. ATF has no rational answer to Tripoli/NAR's argument.

ATF begins with a page-long discussion of the general meaning of deflagration and says it "deferred to authoritative texts" in classifying APCP as an explosive. ATF Brief at 11. Curiously, ATF fails to mention here the most critical information about deflagration in its administrative record—the burn rates that distinguish deflagration from burning. At this point it is sufficient to note simply that merely saying something is so does not make it so. In any event, as Tripoli/NAR explained in their opening brief, and as is explained further below, ATF's decision in fact does not defer to the authoritative texts (there is only one text with any relevant scientific data), but is in fact contradicted by them.

Second, ATF says Tripoli/NAR cited only "a single piece of the technical literature ATF considered." ATF Brief at 13. But ATF does not dispute that this single

piece is the *only* piece with this highly relevant scientific data, that the “piece” is in an official and authoritative U.S. Army document, and that there is no contradictory data in the record. ATF’s argument is thus irrelevant.

Third, ATF argues that “[c]rucially, ATF did not draw the same conclusions as appellants from the information here.” ATF Brief at 13. This is apparently so, but ATF does not, because it cannot, explain how its conclusion that APCP in rocket motors deflagrates can possibly be reconciled with the key U.S. Army data in its own record.

Fourth, ATF argues that the table of burn rates in its administrative record includes “rocket propellants” as an example of a deflagrating material, and it therefore “reasonably drew the conclusion that the reference to ‘rocket propellants’ includes APCP.” ATF Brief at 13, 9. However, ATF does not (and cannot) dispute that there are many rocket propellants other than APCP, some far more reactive. The likelihood that the authors meant to address rocket propellants with APCP is no greater than the likelihood that they did not; we simply do not know. Therefore, ATF’s presumption is irrational and unsupported by evidence. *National Mining Ass’n v. Department of Interior*, 177 F. 3d 1, 6 (D.C. Cir. 1999) (“If there is an alternate explanation for the evidence that is also reasonably likely, then the presumption is irrational”). More importantly, this argument does not confront the actual, specific scientific data about APCP burn rates.

Fifth, ATF argues that its assessment is rational because, “irrespective of the general burn rates offered in the chart from the U.S. Army, appellants have failed to produce any evidence to rebut the notion that, when confined, APCP deflagrates.” ATF Brief at 13. This is a *non-sequitur*. Tripoli/NAR are entitled to argue based on

information ATF itself relied on and placed in the administrative record. This case cannot be decided “irrespective” of the administrative record and, if that record does not support ATF, then Tripoli/NAR should prevail.⁶

Sixth, again ignoring the elephant in the room, ATF makes the unsupported argument that “appellants fail to identify any existing data to support their position.” ATF Brief at 14. What about the scientific data on APCP burn rates cited by Tripoli/NAR and alluded to on the preceding page of ATF’s brief? ATF does not explain.

Seventh, ATF cites several cases for the proposition that “the APA does not require that an agency produce any particular evidence or data to support its conclusions.” ATF Brief at 14-15, 17. If ATF means to say that an agency may weigh and balance conflicting data, and in doing so base its decision on credible and relevant

⁶ ATF refers to an affidavit by a Dr. Conkling. ATF Brief at 13. While Dr. Conkling is the author of the “Chemistry of Pyrotechnics” excerpt in Tab 11 of the administrative record, the Court should not be misled into thinking that the Conkling Affidavit referred to is *in* the administrative record. It is not. ATF used the Conkling affidavit to oppose Tripoli/NAR’s motion for summary judgment in the court below, over Tripoli/NAR’s objection that it was not *in* the administrative record. In any event, Dr. Conkling’s affidavit adds nothing useful. It states simply (without any citation to scientific data) that “[he] consider[s] APCP to be a deflagrating material because it is *capable* of rapid burning and can accelerate to deflagration under pressure or confinement.” Defendants’ Memorandum of Points and Authorities In Opposition To Plaintiffs’ Motion For Summary Judgment, Exhibit A, Affidavit of Dr. John A. Conkling at 2, *Tripoli Rocketry Assn. v. U.S.B.A.T.F.*, No. 00-273 (D.D.C. filed Feb. 11, 2000) (Emphasis added.) That is not the issue here; the appropriate question is whether APCP deflagrates under the specific conditions of pressure or confinement in a rocket motor. In anticipation that ATF would supplement its administrative record, Tripoli/NAR included its own affidavit in its motion for summary judgment. Plaintiffs’ Motion for Summary Judgment, Exhibit A, filed August 30, 2002. That affidavit, by the President of a leading manufacturer of hobby rocket engines and a Tripoli member, addressed specifically the burn rates in APCP hobby rocket motors under pressures typical of rocket flight, *based on actual field test data conducted by the company*. These actual burn rates were in the range of 0.13 to 0.5 inches (3.3 to 12.7 millimeters) per second, consistent with (but even slower than) the burn rates cited in the U.S. Army Encyclopedia, Tab 10 of the administrative record.

data other than that cited by an opponent, we agree. But here there is *no* conflicting data; all the data support Tripoli/NAR. If ATF means to say that the cited cases stand for the proposition that an agency decision on a scientific question may stand even if it is supported by no data, and indeed contradicted by all of the data in the administrative record, Tripoli/NAR strongly disagree. The cited cases say no such thing. Moreover, ATF does not even attempt to distinguish *Motor Vehicles Manufacturers Assn' v. State Farm Mutual Automobile Insurance Co.*, 463 U.S. 29, 43 (1983), or *National Gypsum Co. v. EPA*, 968 F. 2d 40 (D.C. Cir. 1992). In their opening brief (at p. 21) Tripoli/NAR cited both cases for the proposition that an agency decision cannot stand if, as in the case at bar, it is based on unsupported assumptions and is flatly contradicted by the record.

Eighth, ATF argues that “the administrative record includes ATF’s specific comparison of APCP’s properties with the properties of other similarly deflagrating propellants.” ATF Brief at 16. The record citation is to ATF’s decision under review (Tab 1 of the administrative record). That decision states simply that propellants such as black powder, which “typically release less energy when ignited than does APCP,” are classified as deflagrating explosives, and therefore APCP must be a deflagrating explosive as well. But, as ATF must know from its own administrative record, what counts in deciding whether a substance deflagrates is not the *total* amount of energy released, but the *rate* at which the energy is released (how *fast* the burn front progresses through the material). ATF’s argument is unsound and irrational. If the comparison suggested by ATF were relevant to the definition of explosive, a large but flammable wooden building should be classified as an explosive simply because, if it is allowed to

burn after an ignition, it can release over time a total amount of energy (in the form of heat) greater than that in a small amount of black powder.

3. Bare Opinion and the Alleged Scientific Consensus

Ultimately, with no good answer to the scientific evidence about APCP burn rates in rocket motors cited by Tripoli/NAR, ATF is reduced to begging for deference to a decision it based on a few bare, unsupported and highly generalized “opinions” about rocket propellants and an alleged “consensus.” ATF argues that its opinion that APCP is an explosive is supported by opinions in the U.S. Army Encyclopedia of Explosives and Related Items (administrative record at Tabs 7-10) and the “Introduction to the Technology of Explosives” (administrative record at Tab 6). ATF Brief at 11-12, 15. It does not tell us where it finds support in these documents; the extracts from them on page 11 of ATF’s brief merely contain a general discussion of deflagration. In fact, there is nothing here about burn rates of APCP in rocket motors; nor is there any opinion that the APCP in rocket motors functions by deflagration, except for the definitive APCP burn rate data in the U.S. Army Encyclopedia of Explosives and Related Items at Tab 10 of the administrative record which, as indicated, support Tripoli/NAR.

Then ATF refers to the classification standards of the National Fire Protection Association. ATF Brief at 12, 15-16. NFPA materials are in the administrative record at Tabs 12 (“Fire Protection Handbook”), 14 (“NFPA Code for High Power Rocketry, 1998 edition”), 15 (“NFPA 1122 Unmanned Rockets, 1987 edition), and 16 (“NFPA 1122 Code for Model Rocketry, 1997 edition”). Tab 12 includes (at 5-69 and 5-70) the general definition that a “propellant” is an “explosive material which normally functions by deflagration (burning),” the statement that “solid rocket fuels” fall in the category of “low

explosives or propellants,” and the statement that “class B explosives” include “most propellant materials.” The first quote does not tell us whether APCP is one of the “normal” propellants that function by “deflagration (burning),” and the double reference to “deflagration” and “burning” leaves it uncertain what kind of burning reaction the author is referring to. The second quote appears to contrast “low explosives” and “propellants,” suggesting that propellants are not explosives. Again, this cannot help ATF. The third quote reflects the kind of explosives classification one would expect from a body concerned with fire safety—a classification based on the potential capability of the propellant substance to explode, regardless of how the substance actually functions when propelling a rocket. Indeed, there is every reason to believe that the Association is using the broader (criminal) definition of explosive, because at 5-69 it observes that the civil definition of explosive at issue in the case at bar is a “less accurate” definition than the criminal one. Tab 14 says hobby rocket motors should be stored in a container (magazine) marked “explosives.” Again, since hobby rocket motors are scientifically capable of exploding under some conditions, such a designation is not wrong, but it tells us nothing about whether the author believes hobby rocket motors using APCP function by explosion (deflagration), and so are subject to regulation *by ATF*. Tabs 15 and 16 have nothing relevant.

ATF next refers to the International Society of Explosives Engineers. ATF Brief at 12, Tab 13 of the administrative record. Tab 13 has a general discussion of the meanings of deflagration and explosive materials, but nothing about propellants or APCP.

Then, ATF refers to a treatise called “The Chemistry of Pyrotechnics.” ATF Brief at 12, 15. This is at Tab 11, and suggests that “rocket propellants” are capable of “deflagration.” But the treatise author also observes that “a pyrotechnic mixture can vary in performance depending on the conditions of its use,” precisely Tripoli/NAR’s point. Moreover, the treatise does not address APCP; as noted, there are many propellants besides APCP, some of which are far more reactive.

The final reference is to transportation safety regulations of the U.S. Department of Transportation. However, these are irrelevant for, as was true of the National Fire Protection Association, the Department is not construing the jurisdictional bounds on ATF’s regulatory authority, that is, the *civil* definition of explosive, which focuses narrowly on the primary or common use of a substance. Rather, the Department is implementing what is, in effect, the broader criminal definition that, quite properly for Association and Department safety purposes, focuses on the potential capability of the substance to explode, irrespective of its primary or common use.

In sum, there clearly is no “consensus” that the APCP in hobby rocket motors functions by explosion (deflagration). At best, there is an opinion or consensus that rocket propellants, maybe including APCP, can be made to deflagrate under certain extreme conditions.

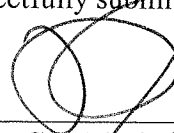
However, there is a more fundamental problem with ATF’s use of these sources. Except for the APCP burn rate data in the U.S. Army Encyclopedia (at Tab 10), which supports Tripoli/NAR and contradicts ATF, these sources do not reference any actual data. All we have is bare “opinions” that are, however characterized, far from the point. But bare opinions, even if they actually addressed the ultimate issue, cannot trump actual

scientific data. By urging the Court to defer to a decision based on bare opinion and contradicted by the actual scientific data, ATF is arguing that actual scientific data are not necessary to describe and reach conclusions about natural processes (like APCP burn rates), and that pure, unsupported and highly generalized opinions on related matters from respected authorities are all that count. Thus, ATF concedes it “certainly could have conducted experiments or otherwise researched burn rates specific to APCP used in model rocket motors to reach its conclusion,” ATF Brief at 15, but says it was not required to do so. ATF Brief at 14. ATF characterizes the lack of scientific data about APCP in hobby rockets as a “quibble,” ATF Brief at 16, and argues that Tripoli/NAR’s exclusive focus on scientific data about burn rates in model rocket motors is “myopic.” ATF Brief at 17. But bare opinions, even were they on point, cannot overrule actual scientific data. Scientific opinions are supposed to be based on scientific data, not thin air. The Environmental Protection Agency tried to do the same thing in *National Gypsum Co. v. EPA*, *supra*. Appellants respectfully suggest that ATF should suffer the same fate as EPA did in that case.

CONCLUSION

ATF’s classification of APCP in model rocket motors as an explosive should be vacated as arbitrary, capricious, and contrary to law.

Respectfully submitted,



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CERTIFICATE OF COMPLIANCE

Pursuant to FRAP 32(a)(7)(C), I hereby certify that this brief complies with the type-volume limitation of FRAP 32(a)(7)(B) and Circuit Rule 32(a)(2), which authorized Petitioners to file a brief of not greater than 7,000 words. In reliance on the word count of the word-processing system used to prepare this brief, I hereby certify that the portions of this brief subject to the type-volume limitation contain 4,814 words.



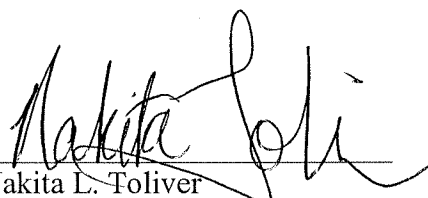
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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of Appellant's Reply Brief was caused to be served on the following attorney of record for Defendant via first class mail on this 23rd day of September 2005:

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