May 29, 2012

Dr. Christopher Watson
Director and Chief Inspector of Explosives
Explosives Safety and Security Branch
Department of National Resources
1431 Merivale Road
Ottawa, ON K1A 0G1

Re: Proposed Revisions to the Explosives Regulations; Canada Gazette Part 1, published March 17, 2012

Dear Dr. Watson;

I am writing as both a Model Rocket/High Power Rocket flyer, and as current President of the Manitoba Rocketry Group (MRG). The MRG is a volunteer organization based in Winnipeg, Manitoba, that advocates the safe pursuit of Model and High Power Rocketry in Manitoba. Since 1995 the MRG has promoted rocketry as a safe, fun, legal and educational sport for adults and youth. The MRG is recognized as an Official Canadian Association of Rocketry (CAR) affiliated club.

I am writing in response to recent proposed changes to the Explosives Regulations, as published in the Canada Gazette, Part 1: Notices and Proposed Regulations, on March 17, 2012.

First, I am very happy to see the recognition that rocket motors and their regulations have been given their own section (Part 15) instead of a subset of consumer fireworks. Those in the hobby understand and recognize that the “launching” of our models is indeed very different from the “launching” of fireworks. As we educate those who are exposed to our hobby, it is gratifying to see the recognition of these differences by the Department.

There are a few proposed changes however that causes concern.

Section 308 states
"A reference to a mass of rocket motors or reloading kits in this Part is a reference to their gross mass (the mass of the motors or kits plus the mass of any packaging or container)."

Throughout the proposed changes, there are numerous references to threshold limits based on weight. Basing these limits on gross weights is in stark contrast to US regulations (and those endorsed by the US equivalent of CAR, the National Association or Rocketry or NAR) whereby the criteria for weight is based on propellant weight. With potential variations in packaging and

weights of inert materials used in reloadable rocket motors, basing threshold limits on gross weights can prove to be inconsistent.

Section 318 states:
"A seller who sells rocket motors, reloading kits or igniters to a user must offer the user either a copy of the table at the end of this Part or a document that includes the same information."

While I have no objection to the intent of this section, namely the inclusion of a Model Rocket safety code with the selling of Model Rocket motors; the indicated table is outdated and inaccurate. This table appears to be the predecessor of the current CAR Model Rocket Safety Code. While the table lists the requirement of being 9 km from an airport, this restriction was lifted from the CAR Safety Code awhile back, to be more in line with the NAR Model Rocket Safety Code and Canada's Model Aeronautics Association of Canada (MAAC) Safety Code. The NAR Model Rocket Safety Code has no reference to specific distances, and the MAAC Safety Code (under the "Space Modelling" section) has the words "Whenever possible, I will launch from locations 9 km or more from any airport". Transport Canada's own Canadian Aviation Regulations themselves state simply, "No person shall fly a model aircraft or kit or launch a model rocket or a rocket of a type used in fireworks display into cloud or in a matter that is or is likely to be hazardous to aviation safety".

To define the specifics of such a code within the regulation, whether one of the existing ones or some hybrid ultimately not only potentially causes confusion but becomes limiting as new technologies, motors and rocket kits come onto the market. Rather it would seem more appropriate to remove the specifics from the regulation and simply reference the existing safety codes currently in use; CAR, NAR or MAAC.

The intent of the section is sound, however I believe it is better served leaving the specifics of such a safety code to existing current, published, and periodically reviewed and revised safety codes.

Section 319 (2), "Acquisition – at least 12 years old" states:
"A user who is at least 12 years old may acquire and store single use rocket motors with an impulse that does not exceed 40 newton-seconds and igniters without a licence. A user who acquires such motors or igniters must comply with this Division."

Section 321 (2), "Maximum quantity – under 18 years old" states:
"A user who is less than 18 years old may store no more than 6 single use rocket motors with an impulse that does not exceed 40 newton-seconds, and no more than 10 igniters."

I find both of the above two limiting to the young flyers 12 through 17 and in fact somewhat of a backwards step in supporting rocketry as a youth activity. Current regulations allow 12 and older to purchase rocket motors which fall under the current classification of 7.2.3 (Class 7, Division 2, Sub-division 3). Currently motors of impulse class "F" (40 – 80 Newton-seconds) fall

into that category. Under the proposed changes, the ability for youths to buy and store motors would be reduced to motors no larger than impulse class “E” (40 newton-seconds).

Furthermore, the limiting of no more than 6 single use motors is highly restrictive. I interpret the phrasing “may store” also indicates the number that may be held in possession at any time. Given the wide range of motor impulses and differing delay times in support of a wide range of rockets, to limit at any time possession to only 6 motors is extremely limiting. Given the ability to cluster motors in some kits, it is highly conceivable that a young flyer could possess a rocket that flies on a cluster of 3 motors. With such a proposed change, that youngster could fly that rocket on an outing of no more than twice. It has been my experience when flying rockets with youth the emphasis is always on the more flights the better. Unlike a High Power launch where the emphasis might fall on a few number of select flights, it has always been the desire when kids fly rockets to fly as many as you can as often as you can!

In closing let me say that it is always encouraging to see current regulations being reviewed and updated. I endorse and support many of the changes, but I also recognize changes that I strongly believe should be reconsidered. It is welcoming to see the opportunity presented for discussion, and I hope that the concerns raised by me and others with first-hand experience with this wonderful hobby of ours leads to serious discussion and some revisions.

Thank-you for the opportunity.

Sincerely,

Bill Krosney
President, Manitoba Rocketry Group

<phone and email redacted>