

Dr. Christopher Watson
Director and Chief Inspector of Explosives
Explosives Safety and Security Branch
Department of National Resources
1431 Merivale Road
Ottawa, Ontario
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Via Email <redacted>

April 17, 2012

Dear Dr. Watson,

I write in respect to the proposed amendments to The Explosives Act, posted March 2012, in the Canada Gazette. As a chemist by vocation as well as a pyrotechnic hobbyist and high power rocketry enthusiast, I'm pleased to see explicit statements with respect to within-dwelling storage limits for fireworks, black powder, model and high power rocket motors as well as allowances for transport of such goods. Also welcome is section 107 which offers a clear route by which competent individuals can conduct work in pyrotechnics including fireworks and rocket motors. As chair of the Ottawa Rocketry Group, I have specific interests in the regulation of rocket motors and in support of our members and those of other rocketry organizations, I'd like to provide several comments concerning storage and import of commercial rocket motors.

Storage of Rocket Motors

While most rocketry enthusiasts are well-served with a 10 kg limit, myself included, there are those among us for whom a single reload being stored for an upcoming launch might itself weigh 10 kg. Such a reload in our view, seems no more hazardous upon ignition than 5 gallons of gasoline though is far more difficult to ignite. From this perspective, I'd like to explore with you the possibility of a minimum in-dwelling allowance of 25 kg rather than 10 kg as proposed in the current amendment. Is it possible to consider a higher storage limit, e.g. 25 kg, for holders of TRA (Tripoli Rocketry Association), CAR (Canadian Association of Rocketry) or other national high power certification?

Importation of Rocket Motors

Adults are currently permitted to bring 6 model motors (1/2A to G, 160 Ns) when crossing the border and subject to normal duties and exemptions. The amendment proposes to restrict this further to motors with a maximum impulse of 40 Ns. I represent the perspective that even the existing limit is not well justified

and should be increased significantly. When I consider that 8 kg of black powder can be imported without an import permit, that six 40 Ns motors might contain 500 g black powder, and the relative hazards of these, it becomes hard to see the rationale for relative limits for these commodities. From my perspective, allowance for importation of motors with a net weight up to 8 kg would be minimally equivalent though one can argue that the motors are still less of a hazard owing to their very large relative grain size and the amount of insulation between grains in an assemblage of individually packaged motors. Many low power and virtually all non-hybrid fuel high power motors are an APCP format, a relatively difficult to ignite propellant, much less sensitive than the black powder which we need to reliably ignite them.

The inclusion of authorized high power motors in an appropriate permit-free import limit for those with high power certification would seem a reasonable accommodation. It would benefit Canadian rocketry enthusiasts who have access to a variety of commercial motors (including Canadian-made CTI reloads) at launches in the US, and to visitors from abroad wishing to attend Canadian launches. I imagine that CAR and TRA could maintain public lists of rocket motors authorized in Canada.

Your impressions would be welcome as would an exploration of reasonable increases to importation and storage limits for model and high power rocket motors, particularly for holders of TRA, CAR or other national high power certifications. I've copied our local representative from the Tripoli Rocketry Association and ORG member Bill Wagstaff, as well as the President and Vice-President of The Canadian Association of Rocketry, Angelo Castellano and Thomas Raithby as I expect they share and may want to support, augment, modify and communicate the thoughts expressed.

Many thanks for your consideration in this matter as well as on a past occasion in which you were very helpful.

Sincerely,

John Campbell, Ph.D.
Chair, Ottawa Rocketry Group
Tripoli Rocketry Association 11490 L2

cc:

Bill Wagstaff, ORG Prefect, Tripoli Rocketry Association
Angelo Castellano, President, The Canadian Association of Rocketry
Thomas Raithby, Vice-President, The Canadian Association of Rocketry