

**UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS**

UNITED STATES OF AMERICA

v.

JACOB MILLER

Criminal No. 25-mj-3059 (KAR)

**GOVERNMENT’S SUPPLEMENTAL MEMORANDUM IN SUPPORTS OF ITS
MOTION FOR PRETRIAL DETENTION OF DEFENDANT**

The United States of America, by and through its undersigned counsel (“the Government”), respectfully submits this supplemental memorandum in support of its motion for the pretrial detention of defendant Jacob D. Miller (“the defendant” or “Miller”).

1. Preliminary Statement

The Government’s detention memorandum (D.10) and supporting affidavit of FBI Special Agent Derek Boucher (D.14), both filed on April 10, 2025, established by clear and convincing evidence that “no condition or combination of conditions will reasonably assure . . . the safety of any other person and the community.” 18 U.S.C. § 3142(e) and (f). The Government further supported that determination through the testimony and exhibits introduced at the defendant’s detention hearing on April 16, 2025.¹ Consequently, the Court should continue to detain the defendant.

¹ References to the Government’s exhibits introduced at the Detention Hearing will be “GX.” References to the testimony of Special Agent Christopher Michalak (not yet transcribed and so discussed in sum and substance herein) will be “CMT.”

2. The Detention Hearing Confirmed that the Defendant Cannot Abide by the Law or the Court's Directives and Poses a Danger to the Community

At the detention hearing, the Government introduced evidence of the defendant's persistent, illegal obsession with explosives and dangerous chemicals, starting in 2004 and running up through April 14, 2024.

a. The Defendant's Possession of Explosives and Prior Convictions

On December 10, 2002, law enforcement officers executed a search warrant at the defendant's residence and located from the basement, among other things, various containers of chemicals; blasting caps; a wooden cabinet with signs that read "combustible," "flammable solid," "dangerous," and "poison"; military equipment including an apparent rocket launcher; a homemade pipe bomb; and recipes for bomb-making. The defendant admitted that he had made the devices. GX 1, ¶ 20. On the following day, law enforcement officers resumed their search and located another apparent pipe bomb and several videotapes, including one that was labeled "Blank Destruction Video + Party at mouth" and depicted the defendant igniting several explosive devices, including one that he referred to as a "hand grenade." *Id.*

In 2004, based upon this evidence, the defendant was convicted in two separate cases of one count of possession of child pornography and two counts of possession of an explosive device. He was sentenced overall to serve two and one-half years in a House of Correction and to ten years of probation, and in 2012, he violated his probation, which ultimately terminated in 2018. *Id.*, ¶ 19.

b. The Defendant's Unauthorized Sales of Radioactive Materials

In 2014 - two years after the defendant violated his probation and while he was still on probation - the Radiation Control Program of the Massachusetts Department of Public Health (the

“MA RCP”) discovered that the defendant was selling depleted uranium (“DU”) on eBay. The MA RCP sent the defendant a cease and desist letter that asked him to provide various information, including his current inventory of, and storage facilities for, radioactive material. The defendant sent a responsive letter to the MA RCP, stating that he had ceased all sales of DU on eBay and (falsely) asserting that he had “no plans to sell any radioactive materials in the future.” The MA RCP responded in another letter, informing the defendant that Massachusetts has jurisdiction to regulate radioactive materials and instructing him that if he should conduct sales of any regulated material, “you must seek approval or licensure from RCP.” *Id.*, ¶ 26.

In 2015, the gravity of the defendant’s conduct was underscored in 2015, when two FBI agents interviewed the defendant about his sales of DU. The defendant explained that he was “only trying to make a quick profit with the sales.” *Id.*, ¶ 27. In spite of the MA RCP’s clear injunction and the FBI’s subsequent visit, in 2017 (while he was still on probation), the defendant eventually started his own Internet business selling radioactive material and other periodic elements, *Collect The Periodic Table*, *id.*, ¶¶ 41 *et seq.*, which led to the instant prosecution.

According to the defendant’s own description of his business: “After collecting for several years, we began selling off surplus element samples on eBay in 2012. Business took off quickly and we decided to expand and offer samples of just about every collectable element at low prices. Started in 2017, *Collect The Periodic Table* is here to offer you every collectible element sample and even some rare and hard to find ones.” *Id.*, ¶ 41.

The defendant’s website explicitly offered “Plutonium (Cold War Era Detector Source),” which it described as an amount of the isotope Pu-239 derived from a Soviet smoke detector. *Id.*, ¶ 42. It is a federal crime to import, or cause to be imported, Plutonium into the United States without lawful authority. *Id.*, ¶ 15 (citing 18 U.S.C. §§ 831(a)(3) and 831(g)).

According to United States Nuclear Regulatory Commission (“NRC”) Physicist Randolph Ragland, Plutonium presents a minimal hazard if it is simply sitting intact on a shelf, but “if the plutonium is ground up and inhaled, the inhalation is toxic,” “[a] very small amount of inhaled plutonium is considered hazardous,” “[i]f the plutonium was ground and placed inside of a bomb, depending on the location of the bomb detonation, there could be a risk,” and “in enclosed spaces, the risk of toxicity for the individuals is high.” *Id.*, ¶ 39.

In spite of this risk, between June 2023 and October 2023, the defendant conducted five separate Paypal transactions of the Plutonium. *Id.*, ¶ 48. Moreover, when FBI agents executed a search warrant of the defendant’s residence on April 8, 2025, they located in a bedroom/office numerous records of recent Plutonium sales during the first few months of 2025. CMT.

c. The Defendant’s Illegal 2023 Procurement and Use of Explosives

In 2023 – during the same period as the defendant’s Plutonium sales - the defendant obtained and used black explosive powder. According to one of the defendant’s friends, a man named MP who lived in Belchertown, the defendant instructed him to purchase explosive black powder from an individual in Illinois. CMT. On or about June 18, 2023, the individual in Illinois shipped a FedEx package containing five one-pound bottles of WANO explosive black powder to MP. GX 3. The FedEx package bore a distinctive red hazardous materials label that described its contents as “black powder for small arms” and “FLAMMABLE SOLID.” *Id.* The invoice inside the package listed the description as five pounds of “BLACK POWDER FOR SMALL ARMS” and contained the same distinctive red hazardous materials label. *Id.*

According to the FBI’s interviews of MP, MP stated: (1) MP ordered the explosive powder but the defendant told him where to purchase it and that they could use it together; (2) MP received the black powder from the individual in Illinois and brought it over to the defendant’s house for

their collective use; (3) on July 4, 2023, MP and others gathered at the defendant's house, where the defendant lit an amount of black powder into a ball of fire; and (5) later in July 2023, MP and others gathered again at the defendant's house, where Miller used a small cardboard container of black powder with a wick strapped to a foam canister to blow up a dishwasher outside the house. CMT.

During the search of the defendant's residence on April 8, 2025, FBI agents located in the defendant's basement the FedEx box, the invoice, one bottle of WANO black powder, and four bottles of GOEX black powder (of which one apparently had the plastic seal opened). GX 3; CMT.

It is a federal offense for any person, like the defendant, who knows he has been convicted of a crime punishable by more than one year in prison, "to receive or possess any explosive which has been shipped or transported in or affecting interstate or foreign commerce." 18 U.S.C. § 842(i)(1).

d. The Defendant's Illegal Possession of Firearms and Ammunition

During the execution of the search warrant on April 8, 2025, FBI agents located a box of approximately fifty rounds of Federal brand, American Eagle .45 auto, 230 grain ammunition inside the bedside table of Miller's bedroom. Affidavit of Special Agent Derek Boucher in support of the Government's motion for pretrial detention (D.14, ¶¶ 9-10). FBI agents also located in a hallway closet safe the following six firearms: (1) a Remington Model 514 rifle; (2) a J Stevens Arms Company Single Gun; (3) a Remington Sportsmaster Model 511 rifle; (4) an O.F. Mossberg and Sons No. 44B; (5) a Marlin Family Firearms Company, Serial No. V31407 rifle;² and (6) Remington Model 12C, .22 Rifle, Serial No. 497525. *Id.*, ¶¶ 12-14. In addition, agents located in

² The Boucher Detention Affidavit mistakenly listed the serial number of this rifle as V314525, but is actually V31407.

the hallway closet safe other rounds of ammunition. CMT.

It is a federal offense for any person, like the defendant, who knows he has been convicted of a crime punishable by more than one year in prison, to knowingly possess, in and affecting commerce, firearms and ammunition. 18 U.S.C. § 922(g)(1).

e. The Discovery of Numerous Potentially Hazardous Substances at the Defendant's Residence on April 8, 2025

During the search of the defendant's residence on April 8, 2025, the FBI, along with a National Guard Weapons of Mass Destruction Civil Support Team (the "WMD CST") discovered numerous potentially hazardous chemical and radiological substances in the defendant's basement, most of which were not responsive to the search warrant, which sought evidence related to the defendant's illegal importation of Plutonium through his operation of *Collect The Periodic Table*. They organized these substances by category, both for safety purposes and to permit state authorities to inspect these items more easily, and placed on them on various blue laboratory mats in the basement. These categories included: (1) radioactive materials; (2) alkali metals; (3) acids; (4) oxidizers; and (5) other substances, including toxic substances like arsenic. CMT. The WMD CST also created a spreadsheet identifying many of these radioactive and chemical substances. CMT.

According to a memorandum of the Massachusetts Department of Environmental Protection dated April 14, 2025 (GX 6),³ members of the ("MassDEP") also examined the area and "left the site with serious concerns related to the potential risk of occupants to the residence, emergency responders, and the public in the event of accidental damage to the containers, a fire,

³ This memorandum mistakenly listed the dates by one day (*i.e.*, April 11 should be April 10, etc.). CMT.

or a natural disaster that would result in the release of chemicals.”

Prior to departing the residence, the FBI took so-called exit photographs of the basement and the items on the blue mats to record their state upon departure. CMT; GX 8.

f. The Defendant’s Release and Apparent Removal of Hazardous Materials

On April 9, 2025, United States Magistrate Judge Katherine A. Robertson conducted Miller’s initial appearance. The Government informed the Court that based on the materials known to be present at the defendant’s residence, “MassDEP is greatly concerned about potential impacts to public safety. Accidental release, breaking of containers, mixing of incompatible or reactive chemicals and or a fire at the residence pose a serious risk to public safety. MassDEP strongly urges a full and comprehensive evaluation at the residence and removal of any remaining hazardous chemicals.” The defendant agreed that MassDEP could examine and remove hazardous substances from his residence on the following morning. The Court ordered that Miller be released subject to pretrial conditions, including that he reside with his father, Raymond Miller, and the Court also permitted the defendant to return to his residence for the sole purpose of retrieving personal items, such as clothing and his cat. D.9, 11.

Unbeknownst to the Government, the FBI, or the MassDEP, according to the FBI’s later interview of the defendant’s own father: (1) after court on April 9, 2024, he and the defendant drove to the defendant’s residence; (2) the defendant immediately went into the basement and began to move chemicals; (3) he repeatedly urged the defendant to hurry up in the basement; and (4) the defendant remained in the basement for approximately fifteen minutes. CMT.

On April 10, 2024 at approximately 9:00 a.m., MassDEP emergency response staff and members of a state environmental cleanup contractor (“ESI”) arrived at the defendant’s residence. The defendant “immediately began to object to the assessment and removal of chemical [and]

made it difficult for staff to do their work. This behavior was reported to the DOJ attorney and defense attorney. He became less belligerent after speaking with his defense attorney, but continued to comment, question, and impeded MassDEP's work. . . ." *Id.* at pp. 1-2.

"One of the MassDEP staff who had been in the residence on April [8] noticed a significant reduction in the number of chemical containers since his walk-through. He asked Mr. Miller if he had moved any containers and he replied he had not." *Id.*, at p. 2. [As the defendant's father later told the FBI, this denial was false.]. The defendant also denied having any elemental mercury . . . but then staff found a large quantity of elemental mercury in a glass jar." *Id.* The MassDEP's contractor removed thirteen containers of chemicals, including 45 pounds of the elemental mercury. *Id.*, pp.3, 10. Even a small amount of mercury, such as that contained in a household thermometer, can result in heavy metal poisoning. Boucher Detention Affidavit, ¶ 16.

MassDEP took photographs of the blue lab mats and their contents as they encountered them on April 10, 2025. GX 7. When compared to the FBI's exit photographs of the mats and their contents on April 8, 2025, GX 8, it is obviously apparent that many items have been moved (and possibly removed from the basement entirely). CMT. According to the MassDEP, at least eleven items appeared to have been missing on April 10, 2025. CMT; GX 9 (circled items). According to the FBI's WMD Coordinator Josh Canter, who was present on both April 8, 2025 and April 10, 2025, the list of missing items was larger and included hazardous substances such as Geranium crystals, which pose an "explosion hazard: may form flammable or explosive dust-air mixtures." CMT; GX 10.

g. The FBI's Discovery of Other Potentially Hazardous Substances in the Piano in the Basement on April 14, 2025

On April 14, 2025, the FBI executed a search warrant for the rear area of a piano in the

defendant's basement. GX 14. When bomb technicians were conducting a safety clearance of the piano, a front panel of the piano dislodged, revealing a cavity that contained what appeared initially to be a potential pipe bomb labeled "Rubidium" as well as numerous boxes, a disc labeled Pu-239, and a container labeled "explosive antimony allotrope." CMT; GX 15 (photograph of cavity and items), 17 (FBI's property receipt listing sixteen items), 18 (explosive antimony allotrope container), 19 (pipe labeled Rubidium);.

According to the Los Alamos National Laboratory, Rubidium "ignites spontaneously in air and reacts violently in water, setting fire to the liberated hydrogen." GX 20. According to the academic website ChemTalk:

The explosive allotrope of antimony is a solid solution of antimony trichloride. It is extremely sensitive, and even a small scratch can trigger a destructive explosion. When antimony trichloride vaporizes, heat releases, and an explosion of white clouds occur. This is a very dangerous process, as antimony trichloride fumes are toxic. When inhaled, it causes irritation in the mouth, nose, throat, and lungs addition, it may cause headaches, abdominal pain, and may affect the health of the liver, heart, and reproductive system.

GX 21. The FBI was sufficiently concerned about the container labeled explosive antimony allotrope that it removed it inside a "frag(mentation) bag" to be blown up in a quarry. CMT.

The FBI left a four-page list of 131 chemicals, most of which were found inside the piano, for the MassDEP to examine and/or remove. CMT; GX 23. The MassDEP examined the basement later that day and ultimately removed an additional 51 items. CMT; GX 24.

3. Conclusion

For the preceding reasons, the Government respectfully requests that the defendant be detained pending his trial.

Respectfully submitted,

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Dated: April 16, 2025