

**From:** [Shoemaker, Mirabelle](#)  
**To:** [Siurano-Perez, Osiris](#)  
**Subject:** Sensor Concepts (ZNM) Inventory Inquiry  
**Date:** Wednesday, December 04, 2019 3:07:15 PM

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Hi Osiris,

NMMSS examined the comp codes for material reported within the inventory for Sensor Concepts (ZNM). Unfortunately the detail of the composition codes (chemical/physical composition) do not correlate 1:1 with the listed chemical/physical forms on the license. So NMMSS inventory data cannot definitively match the material to the license language; however NMMSS analysts were able to make the following assessments from the most recent material status report and subsequent material transaction reports:

NMMSS checked compliance via material type as reported on Form 741s. For example, for plutonium (Line D on the license), NMMSS pulled all transactions to and from ZNM since its last reconciled inventory (12/31/2018). NMMSS added all receipts of plutonium, subtracted all shipments, and then compared the ending balance to both the generated material balance report. The data shows compliance with the license requirements for possession of material type and assay- calculated plutonium possession is 0, which falls below the maximum amount allotted.

For enriched uranium, NMMSS was able to use the same methodology but by assay range. Based on data reported by the licensee, NMMSS confirms that the balances of LEU and HEU are below the amount permitted by the license but cannot determine how much is specifically "solid uranium metal plates clad in nickel plating." Therefore, for lines A-B on the license, the LEU is compared in aggregate. For HEU (Line C), NMMSS calculated an ending inventory of 803g U-235 which is below the 897g allotted. For LEU (Lines A-B), NMMSS calculated an ending inventory of 3284g U-235 which is below the 5,688g allotted for Lines A-B together.

Based on the above assessment, ZNM material holdings appear to be in compliance with its license.

Please let me know if additional information is needed.

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