



STATE OFFICE FOR NUCLEAR SAFETY

*State Office for Nuclear Safety  
Senovážné nám. 9, 110 00 Prague 1  
Nuclear Safety Section*

In Prague, on 10 October 2013  
Ref. no.: SÚJB/ONRV/21069/2013  
File no.: SÚJB/POD/19221/2013/3  
RAW and Spent Fuel Management Division

## DECISION

The State Office for Nuclear Safety (SONS) as the competent administrative body pursuant to Section 3 (2) (c) of Act no. 18/1997 Sb., On Peaceful Utilisation of Nuclear Energy and Ionising Radiation (the Atomic Act) and on Amendments and Additions to Some Acts, as later amended, has decided as follows in the administrative proceedings initiated pursuant to Section 44 (1) of Act no. 500/2004 Sb., Rules of Administrative Procedure (hereinafter referred-to as “RAP”), on 2 September 2013 on the basis of an application filed by a participant in proceedings as defined in Section 27 (1) (a) RAP – Eckert & Ziegler Cesio s.r.o., Identification Number 45274584, Registration Number 108600 (hereinafter referred-to as “Participant in Proceedings”), of 28 August 2013 under file no. 20/EZC/13 in the matter of repeated issuance of the decision on type approval of a special form radioactive material:

SONS, pursuant to Section 67 (1) RAP and Section 23 (2) of Act no. 18/1997 Sb., as later amended,

### **a p p r o v e s**

Construction type **Am1.P08/Am1.P081** special form radioactive material (hereinafter referred-to as “SFRM”), this SFRM, manufactured in conformity with the documentation assessed, being assigned the identification designation

### **CZ/1010/S – 96**

and, for the purposes of international identification, this Am1.P08/Am1.P081 type approval decision being assigned the code designation

### **CZ/1010/S – 96 (Rev. 2).**

The special form radioactive material under the identification designation CZ/1010/S – 96 complies with the requirements of Act no. 18/1997 Sb., as amended, as well as the relevant implementing regulations, the recommendation of the International Atomic Energy Agency (IAEA) titled “Regulations for the Safe Transport of Radioactive Material, 2009 Edition Safety Requirements Series No. TS-R-1,” and the requirements of the international transportation regulations that refer to the cited IAEA’s rules.

## Description of the Special Form Radioactive Material

Special form radioactive material under identification designation CZ/1010/S-96 is manufactured in two variants that only differ in the size of the capsule. It has cylindrical shape, either of the height of 10.0 mm and the diameter of 4.4 mm for the Am1.P08, or of the same height of 10.0 mm and the diameter of 4.0 mm for the Am1.P081. The capsule is made of stainless-steel and has a closure of the same material; they are welded together by arc welding in the protective atmosphere (TIG). The capsule contains a cylindrical radionuclide emitter. The outlet hole of the capsule is 0.25 mm thick.

Eckert & Ziegler Cesio s. r. o., Radiová 1, 102 27 Prague 10, is the manufacturer of this SFRM.

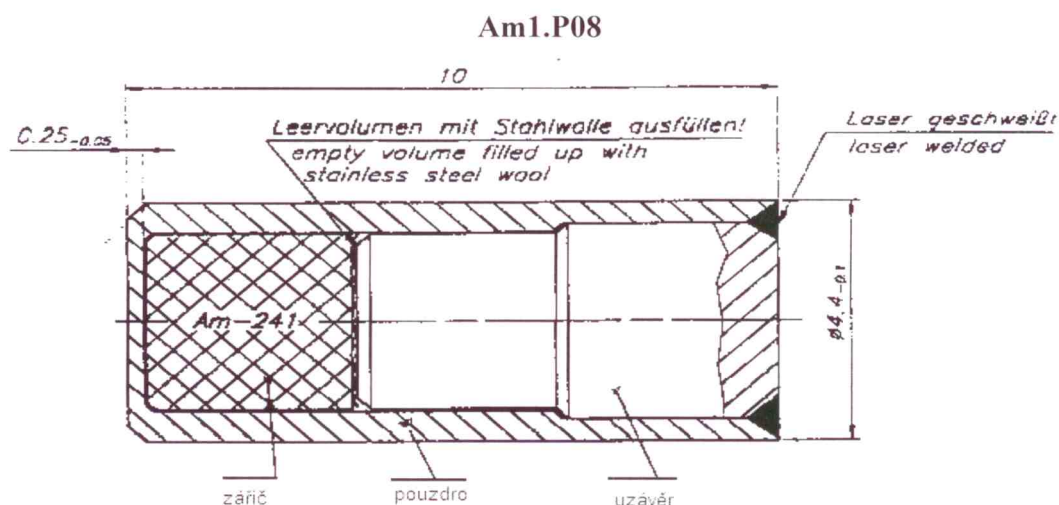
## Parameters of the Special Form Radioactive Material (SFRM)

SFRM Type	Outer diameter [mm]	Height [mm]	Thickness of the hole [mm]	Maximum activity [GBq]	ISO Classification
Am1.P08	10	4.4	0.25	11.1	C 64444
Am1.P081	10	4.0	0.25	11.1	C 64444

## Picture of the Special Form Radioactive Material

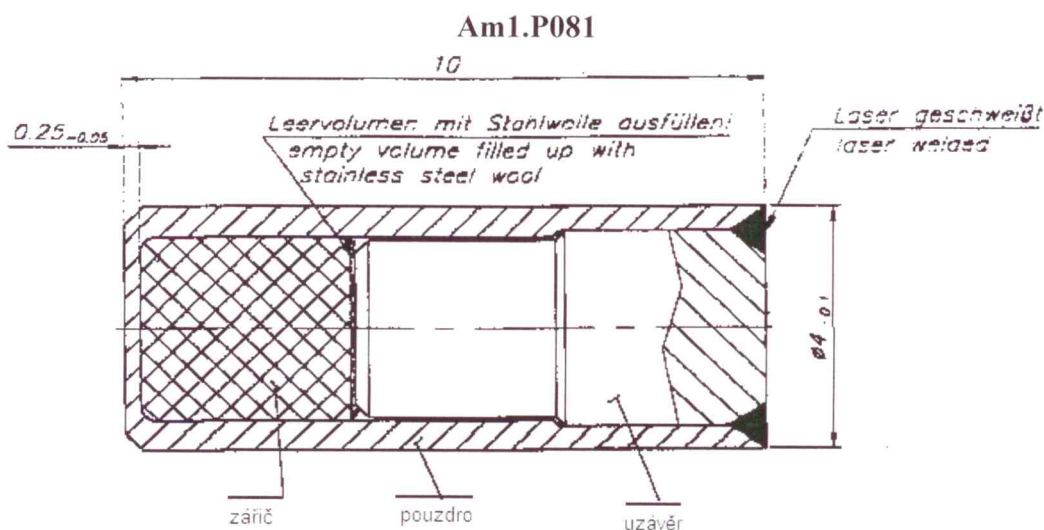
The picture of the under identification designation CZ/1010/S – 96 for the Am1.P08 variant corresponds to the technical drawing “Am - 241 Quelle, Am1. P08, 1. 207.01.08 – 00:00 (4) vom 25. 06. 1996, BEBIG Isotopentechnik und Umweltdiagnostik GmbH”.

The picture of the under identification designation CZ/1010/S – 96 for the Am1.P081 corresponds to the technical drawing “Am - 241 Quelle, Am1. P081, 1. 207.01.18 – 00:00 (4) vom 25. 06. 1996, BEBIG Isotopentechnik und Umweltdiagnostik GmbH” .



empty volume filled up with stainless steel wool = prázdny objem je vyplněn vatou z korozivzdorné oceli  
laser welded = svařeno laserem

zářič = emitter, pouzdro = capsule, uzávěr = closure



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### Conditions for Use of the Special Form Radioactive Material:

Type-approved SFRM Am1.P08/Am1.P081 under identification designation CZ/1010/S - 96 may be used only subject to the compliance with the following conditions:

#### 1. Permitted Radioactive Content

The Am1.P08/Am1.P081 special form radioactive material under identification designation CZ/1010/S – 96 may only contain a radionuclide emitter consisting of a <sup>241</sup>Am radionuclide with the maximum activity of 11.1 GBq bound in the form of americium oxide.

#### 2. Handling, Maintenance and Inspections

Handling, maintenance and operating inspections – reviews of the Am1.P08/Am1.P081 SFRM must be performed in compliance with the requirements given in the valid version of “Instructions for Safe Handling of Ionizing Radiation Sources (ZIZ), QM-RP-006, Eckert & Ziegler Cesio s.r.o.”

Reviews of the Am1.P08/Am1.P081 SFRM, operating stability test and long-term stability test performed in accordance with the above document under ISO 9978 “Radiation Protection – Sealed Radioactive Sources –Leakage Test Methods 1992” must be documented by an official record and archived throughout the life of the SFRM.

#### 3. Quality Assurance

The special form radioactive material the under identification designation CZ/1010/S – 96 must be manufactured in accordance with the following technical drawings:

- For the Am1.P08 variant, “Am - 241 Quelle, Am1. P08, 1. 207.01.08 – 00:00 (4) vom 25. 06. 1996, BEBIG Isotopentechnik und Umweltdiagnostik GmbH”;

