

## **Annex No. 3 - Technical Specification**

**Public Contract:** “Design modifications of neutron optics system for BEER – part I”

This scope of work describes additional research and service activities as defined in the Article 3.5 of the Contract for Work on the „Delivery of neutron optics system for the BEER diffractometer – part I – Round 2“ concluded on 29/12/2018 between the Contracting Authority and supplier NUVA a.s.; the said Contract for Work hereinafter denoted as “CW”.

Based on the outcome of the intermediate design review carried out by ESS, *additional research and service activities* are required to meet the new ESS requirements for neutron guide alignment method, as specified below.

### **Requested work**

- Design modifications of neutron guide elements and their assemblies
- Design modifications of vacuum housing sections
- Design modifications of the shutter guide

according to the following **specifications**:

1. A 2 mm gap shall be implemented between guide elements at bellow positions instead of the previous standard < 0.3 mm
2. The preassembled housing sections will be 4 m long (instead of previous 6 m) and will be aligned with the piles in the guide hall E02
3. The shutter guide will be shortened by 70 mm, additional 200 mm long Cu unit will be added is the gap
4. The shutter guide will be fixed in the vacuum housing and aligned together

The results of requested design changes will be implemented in the final version of the updated SubTG3.2 documentation according to the standards and requirements specified in the CW.

### **Schedule**

<b>Deliverable</b>	<b>Date</b>
Submission of updated SubTG3.2 documentation	30 <sup>th</sup> November 2019