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Journal Name:	**Physical Science International Journal**
Manuscript Number:	**Ms_PSIJ_23545**
Title of the Manuscript:	**NEUTRONICS STUDY OF NIRR-1 FUELLED WITH 19.75% UO2MATERIAL USING VENTURE-PC AND SCALE 6.1 CODES**
Type of the Article	**Original Research Articles**

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty'**, provided the manuscript is scientifically robust and technically sound.
To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Compulsory REVISION comments	**It is important to convert HEU to LEU of NIRR-1 fuel, and this manuscript describes some features of the LEU core . Therefore it is interesting, but it is necessary to compare the main neutronics features in more detail between the HEU core and the LEU core. In discussing the control rod worth, the authors should describe the required reactivity worth and shutdown margin for the two cores (different or same?) . The reactivity versus shim thickness is shown in figure , but there is no explanation about the determined shim thickness that meets the design requirement.** **Also for flux distributions it is desirable to compare with those of HEU core , and discuss the differences** **between the two cores. This will make the difference more clear.**	
Minor REVISION comments	There are many miss-types in the manuscripts. Please revise! Check the line 23 (reactorsdue) Line 54 attempt → attempts 61 results used → results to be used 64 usedto → used to 66 ofNIRR → of NIRR 85 (3.0) put this number at the right hand side 115 show → shows 130 ccand → cc and 132 for the present HEU core. → Eliminate! 136 weobserved → we observed 154 different → difference 155 compare → compared	
Optional/General comments	Please check the manuscript more carefully.	

Reviewer Details:

Name:	**Toshikazu Takeda**
Department, University & Country	**University of Fukui, Japan**