



**SDI FINAL EVALUATION FORM 1.1**

**PART 1:**

Journal Name:	<a href="#">Physical Science International Journal</a>
Manuscript Number:	Ms_PSIJ_25287
Title of the Manuscript:	Reduction of Environmental Impact of Fixed Bed Nuclear Reactor (FBNR) Waste
Type of Article	Original Research Article

**PART 2:**

FINAL EVALUATOR'S comments on revised paper (if any)	Authors' response to final evaluator's comments
Even if fission products can be used as radiation sources, sterilization doses are lethal for human beings, and so I don't think they can be used to sterilize Medical Doctor's hands as it is showed in the paper's picture. The problem of C-14 to recycle fission products should be clearly and specifically mentioned.	<p>I am sorry that the picture created misunderstanding and thus it is now eliminated. It was meant to transmit the CONCEPT of sterilization and not to sterilize hands by exposing directly to gamma radiation! Of course, the radiation sources are inside the appropriately designed irradiation equipments.</p> <p>In the reprocessing of TRISO particles, the spent fuel goes through a crushing process and many types of solvents are used to extract the fission products. The separation of carbon is more complicated as burning will produce CO2 where the radioactive C-14 is not easy to handle. Therefore, reducing the production of radioactive carbon is an important action. We are trying to see whether SiC can contain the fission products or not. If so, we will eliminate graphite totally in the future fuel design.</p>