

# Model Update – 09/01/2013

Before Christmas:

Updated the model of Holger's shield to include new flanges

Updated Rack model, options to model:

- Remnant mass in the centre of the racks/compressors

- Nine masses distributed around the inside of the rack.

- Ability to turn panels to air (i.e. Effectively remove panels from racks)

The aim was to run these models over the Christmas holidays to have some results for the new year.

This was partially successful as I managed to get several models to run to completion but I ran into a meshing error shortly after Christmas and this stopped me from running all of the models that I wanted too.

I've since found the meshing error and I feel that the bug was fairly minor so I'm continuing to run these models in the background.

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| Step IV Magnets 240 MeV/c             |           |             |               |                        |
|---------------------------------------|-----------|-------------|---------------|------------------------|
| Compressors & NSW Racks               | No Shield | Open Shield | Closed Shield | Closed Shield & Flange |
| All Iron in Skin                      | Model 31  | x           | x             | x                      |
| 2mm Skin, Reduced Core                | Model 34  | x           | x             | x                      |
| 2mm Skin, 50mm Airgap, Reduced Core   | Model 35  | Model 36    | Model 37      | Model 44(TBC)          |
| 2mm Skin, Single Solid Cube in Centre | Model 38  | x           | Model 40      | Model 41               |
| 2mm Skin, 9 Solid Cubes               | Model 39  | x           | Model 42      | Model 43               |

| Step IV Magnets 240 MeV/c             |                |                        |
|---------------------------------------|----------------|------------------------|
| Compressors & NSW Racks (OPEN FRONTS) | No Shield      | Closed Shield & Flange |
| All Iron in Skin                      | ?              | ?                      |
| 2mm Skin, Reduced Core                | ?              | ?                      |
| 2mm Skin, 50mm Airgap, Reduced Core   | ?              | ?                      |
| 2mm Skin, Single Solid Cube in Centre | Model 45 (TBC) | ?                      |
| 2mm Skin, 9 Solid Cubes               | ?              | ?                      |

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I understand that Craig is going to take a look at these results for comparison when he gets the opportunity.

My attention is now going to be focused upon getting all of the MH south side buildings into the model (Plant Room), (MLCR) , Rack Room, Hydrogen Room, ISIS Control Room etc