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**To:** "'Eric Jameson'" <EJameson@dnr.state.ga.us>  
**Date:** Friday, 16 February, 2007 17:46:33  
**Subject:** EADS Sodern Amendment

Hello Eric,

I am attaching some documents which should clear up the construction questions that you had. The area completely surrounding the NEM is HDPE (you can see the blue modular HDPE blocks in the photos). If you look at the top 2 pictures (particularly the one on the upper right) you will see the steel supports (also blue) around the perimeter of the CNA. Each modular unit to the right and left of the NEM is about 29" wide. The entire unit is about 1 meter wide.

If you should have any further technical questions you wish to contact Damien Smith at Dsmith@sodernusa.com.

Please do everything you can to move this forward as quickly as possible. We have a very tight deadline with our new project in Illinois, and need to have this amendment submitted to Mr. Henry in Illinois before we can move forward.

Thanks for your time, we will appreciate anything you can do for us.

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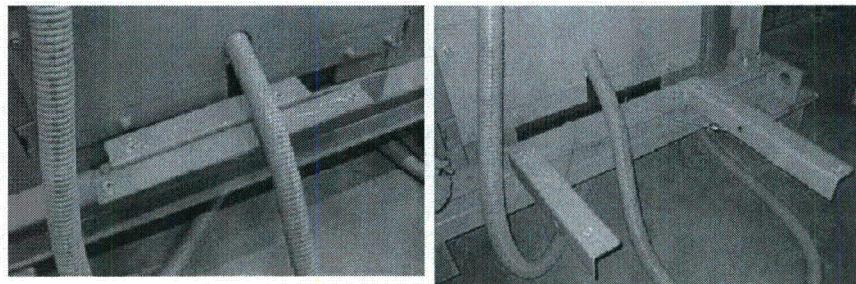
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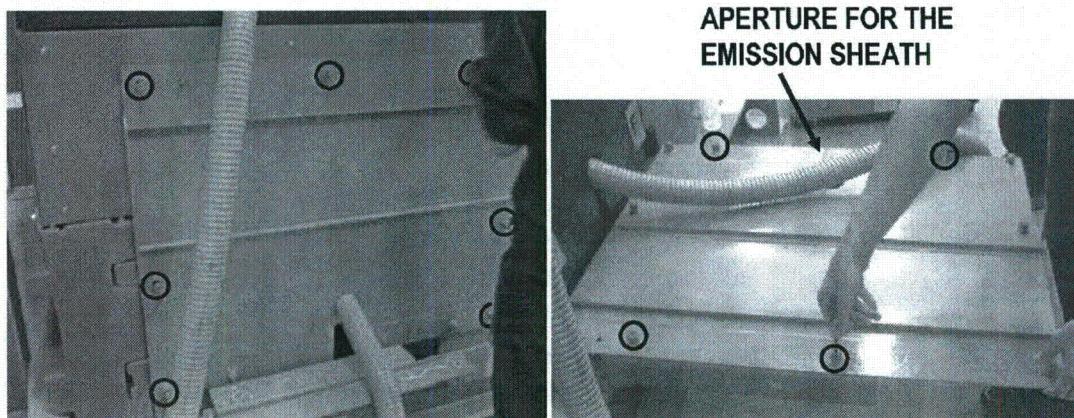
# Annex 4: CNA Safety devices & controls

Risks	Security devices or risk prevention
Radiation protection when CNA ON	Shielding blocks all around the neutron source reduce the dose rate in the vicinity of the CNA. The shielding blocks are PE shells filled with a neutrons stopping material (mixture of paraffin and PE)
	Radiation dose rate are controlled by the manufacturer (SODERN) in the manufacturing site and by the user on site
	Automatic Radiation Protection: fence around the CNA which delimits a radiation area.
	The user can connect a warning light to the tube emission signal to warn people about the presence of neutron emission.
People attempting to penetrate into the fenced area	A security switch installed by the CNA user on each access door of the fenced area will automatically switch off the generator. Each security switch is serially linked to the security loop, which directly control the generator ON/OFF (hardware link with not software dependant).
	Radiation posting on the fenced area, installed by the CNA user, warn about the presence of radiations.
People attempting to open the CNA and access to the NEM	NEM access is protected by two levels of security devices: • one security switch on the outside door of the NEM access door, • one security switch on the NEM drawer itself. Each security switch is serially linked to the security loop, which directly controls the generator ON/OFF (hardware link with not software dependant).
	The security switches used are Class III magnet auto-controlled high security switch. The good working order of the security switches is checked on each CNA by the manufacturer (SODERN).
Radiation dose when the neutron generator is OFF	Radiation posting are stick on the different faces of the CNA to warn about the presence of possible radiation
Risk during Maintenance and service	The dose rate in contact with the CNA when the generator is OFF is lower than 0.5 µSv/h. The surrounding area of CNA when the generator is OFF can thus be considered as a public zone.
Electrocution	Maintenance and service operation are to be done when the generator and the CNA electronics is OFF, as described in the user manual.
	The whole CNA electronics, through its design and its manufacturing, passes all the CE certification qualification.
	All the electronic equipments are integrated and tested in the manufacturing plant.
	All the electronic equipments of the shielding are protected in hermetic IP55 boxes.
	No part under voltage is accessible from outside. Warning posting is stick on the CNA and on the electronic boxes.
	All metal parts are linked to the earth point.
	HV cables are protected by very rugged insulating sheath
CEM	The compliance to the CE specification with emission of electromagnetic limits has been qualified in the frame of the CE certification.

## Annex 5: Safety instructions



The jointed arms: folded and unfolded



Wipe carefully the access gate plate so that the drawer of the NEM will slide on it easily.



EADS SODERN recommends the operator to use the provided suction grip for this step.

