

Chernobyl NPP Decommissioning Visualization Centre

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12 min

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CHERNOBYL

Cooperation History



2006

- Proposal of the Norwegian government
- Decision to establish the CDVC
- Cooperation Agreement IFE – ChNPP

2007

- Intergovernmental Agreement (the Kingdom of Norway and Ukraine) – International Technical Assistance project

2012 - 2013

- The Agreement was signed on 30 November 2012
- Ratified in June 2013

2015

- registered in Ukraine as International Technical Assistance project

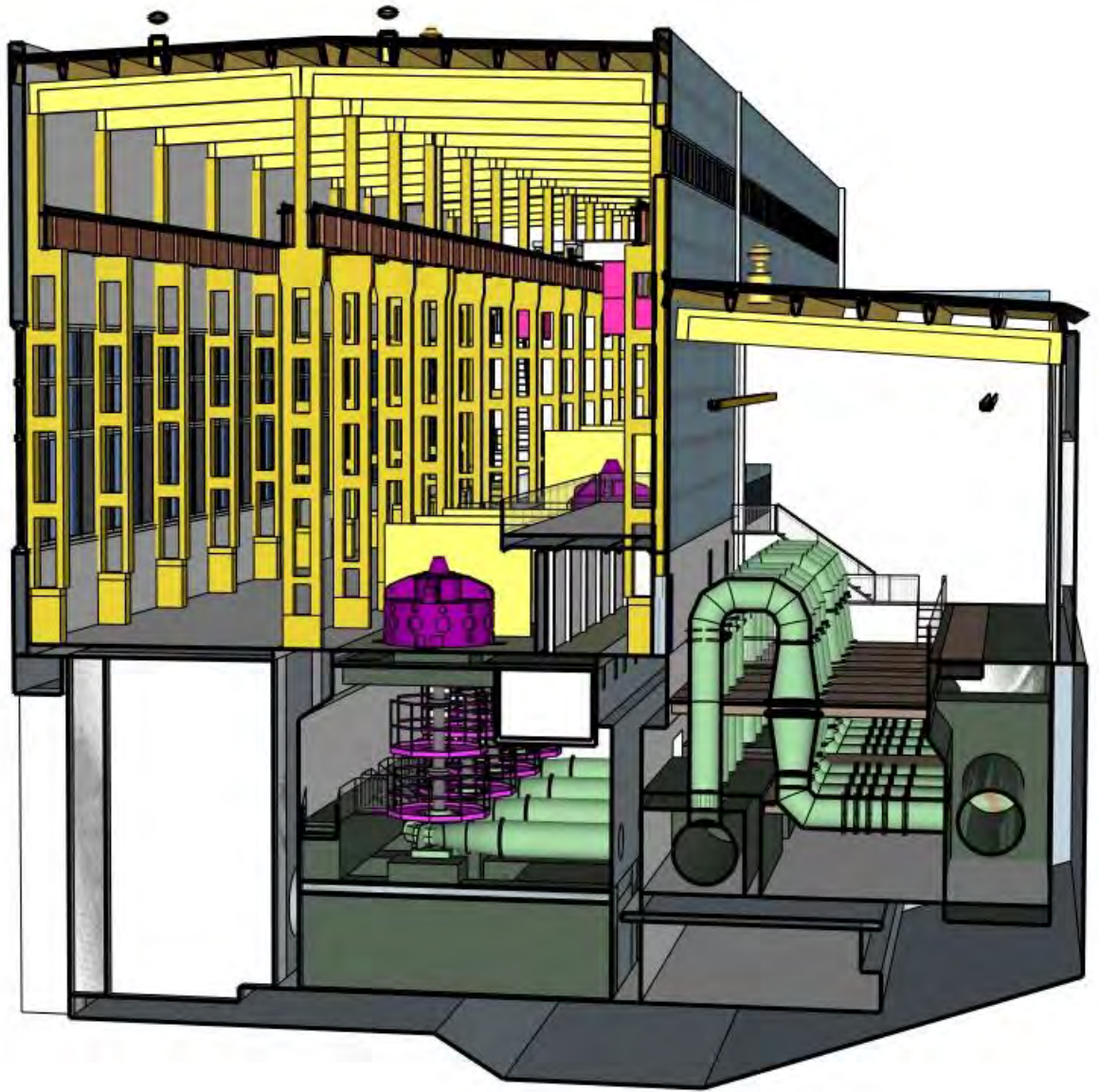
2016

- Installation of the CDVC hardware and software, staff training, acceptance tests
- Pilot-industrial operation



CDVC functions

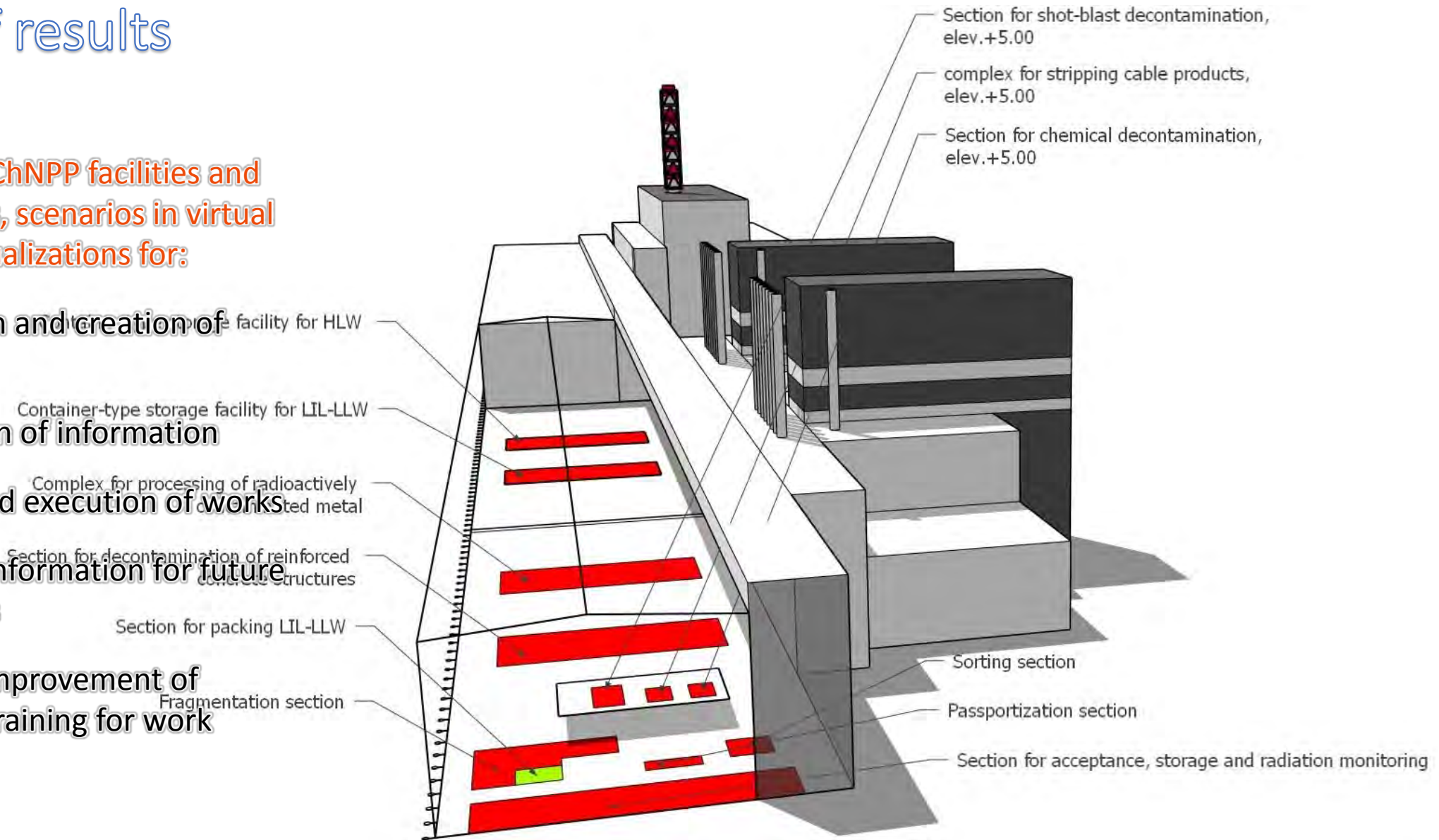
- Creation of ChNPP 3D-models
- Creation of 3D-models of radiation fields
- Creation of scenarios in virtual environment
- Visualization of scenarios
- Use of visualizations and models for ChNPP purposes



Usage of results

3D-models of ChNPP facilities and radiation fields, scenarios in virtual reality and visualizations for:

- organization and creation of knowledge
- presentation of information
- planning and execution of works
- storage of information for future generations
- efficiency improvement of personnel training for work execution
- ...



Software



- Creating models of 3D-objects



- Placement of models in virtual reality.
- Creation of work execution procedures.
- Planning of using personnel in radioactive environments.
- Visualization of received scenarios.



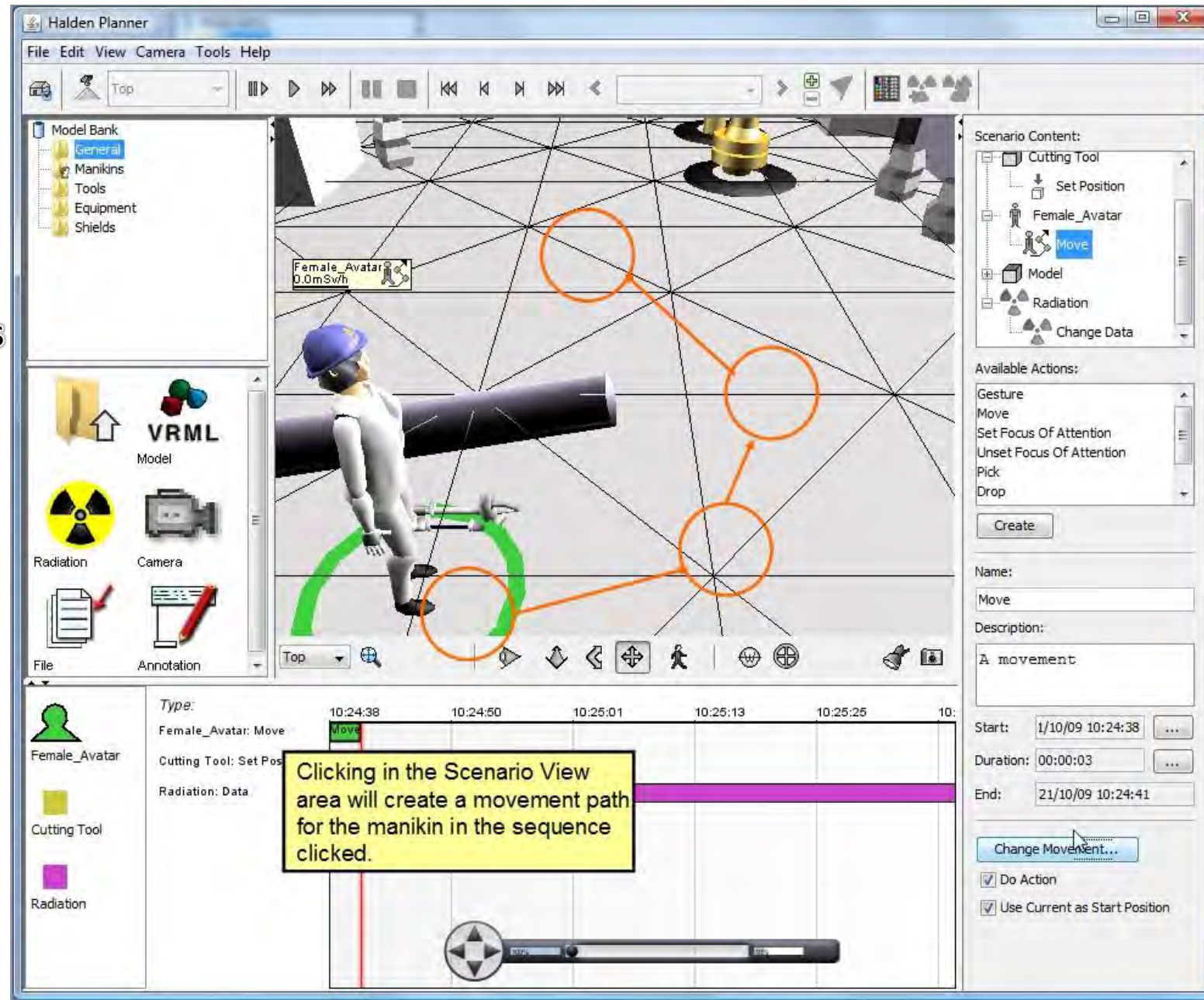
What we get?

- Efficient presentation and usage of information
- Sketches of objects
- Data of surveys
- Cross-sections of models
- Contamination cartograms
- ...



Scenario preparation

- What process we wish to visualize?
- Step-by-step description of this process
- Export of 3D-models of objects
- Formation of surrounding situation
- Visualization of work sequence
- Modeling of radiation situation
- Assessment of received doses
- ...



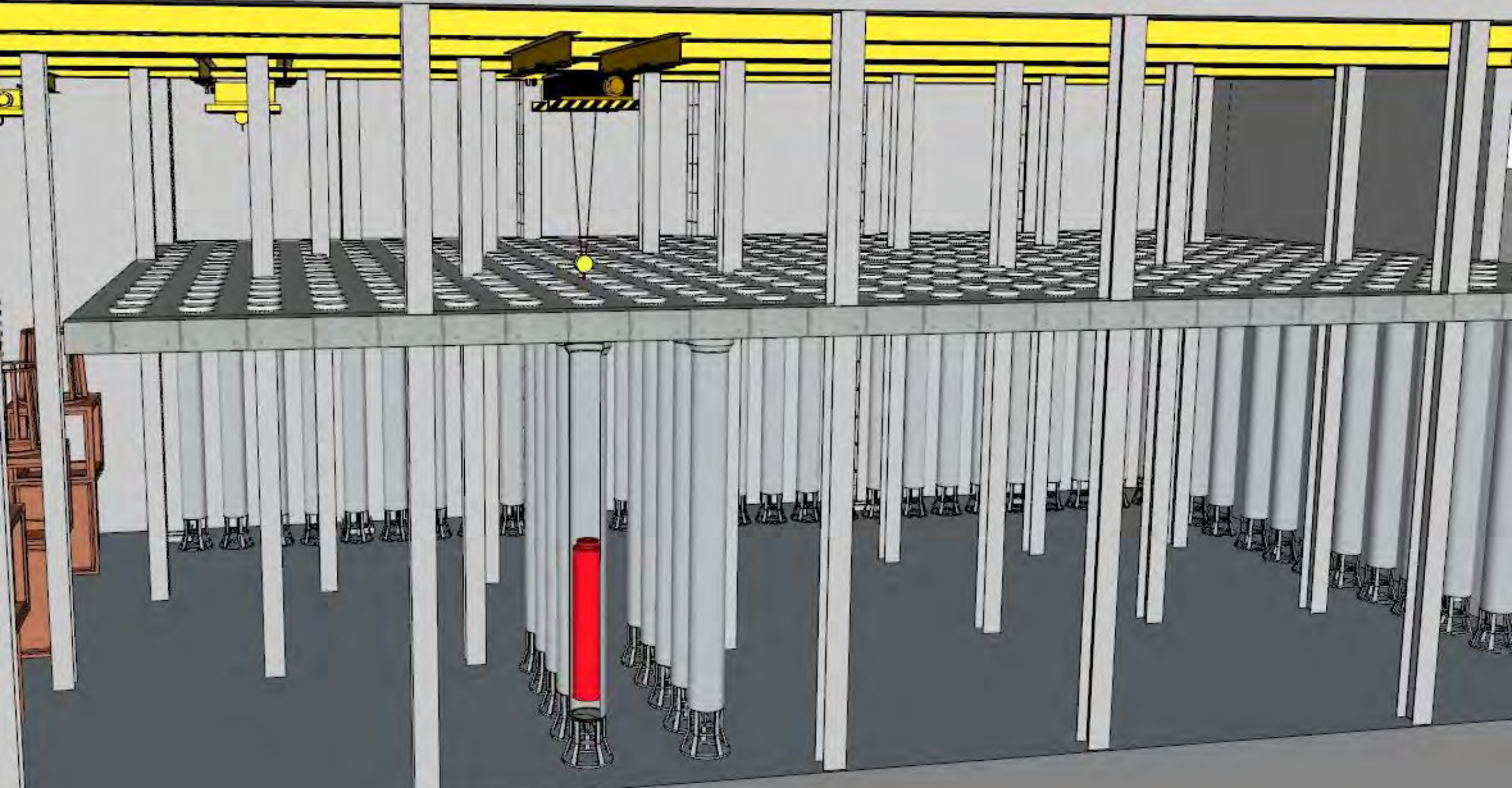
Pilot-industrial operation of CDVC.

Main tasks.

- Usage of CDVC equipment during CERS of ChNPP outside facilities.
- Building of 3D-models of ChNPP objects.
- Modeling of SNF transportation process.
- Shelter Object transformation into environmentally safe system.
- Drill and improvement of working procedures.
- Study of software improvement issues.

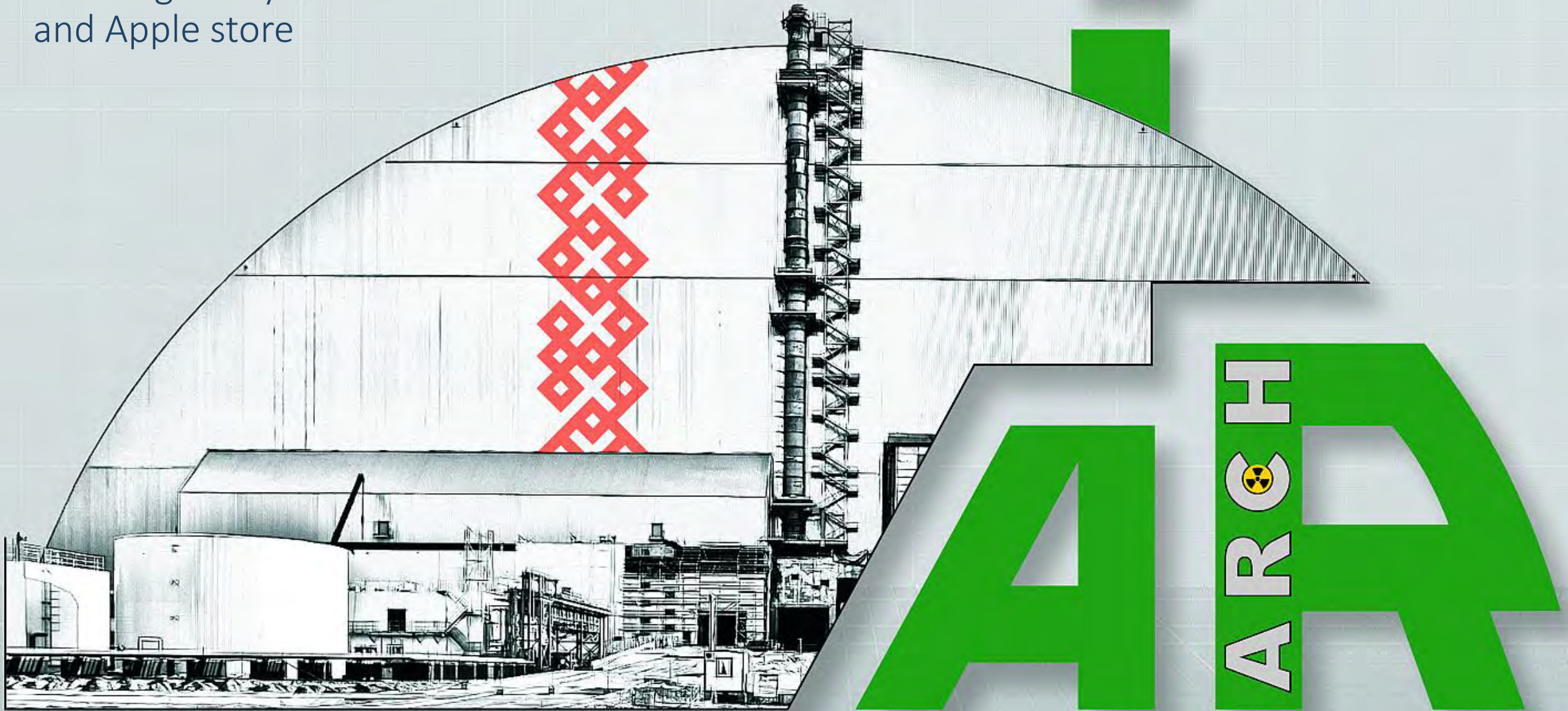


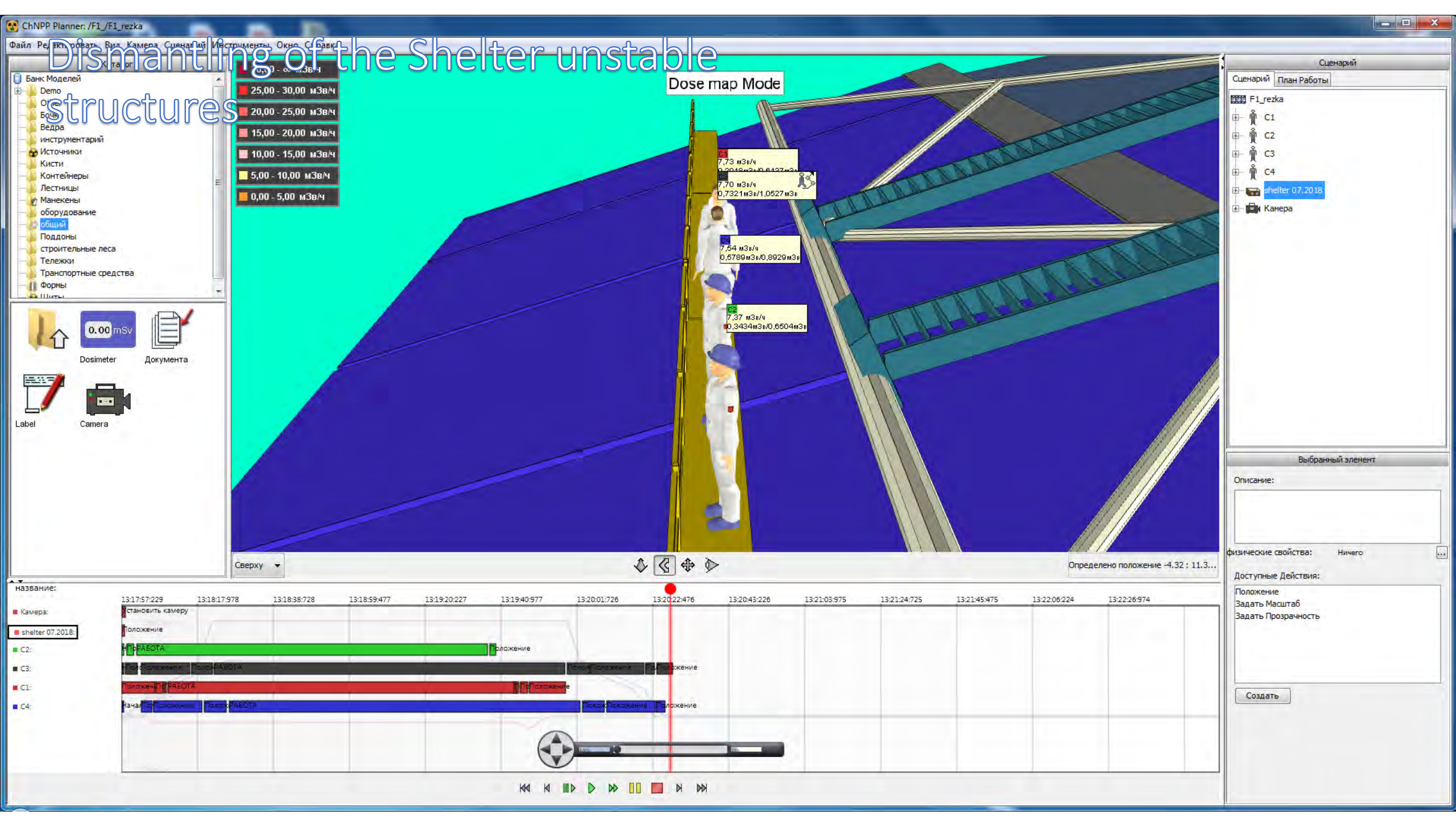
Addressing possibilities to place HLW



Arch 3d

on Google Play Market
and Apple store





Dismantling of the Shelter unstable structures

Dose map Mode

Сценарий

Сценарий План Работы

F1_rezka

C1

C2

C3

C4

shelter 07.2018

Камера

Выбранный элемент

Описание:

физические свойства: Ничего

Доступные Действия:

Положение

Задать Масштаб

Задать Прозрачность

Создать

Сверху

Определено положение -4.32 : 11.3...

название:

Камера:

shelter 07.2018:

C2:

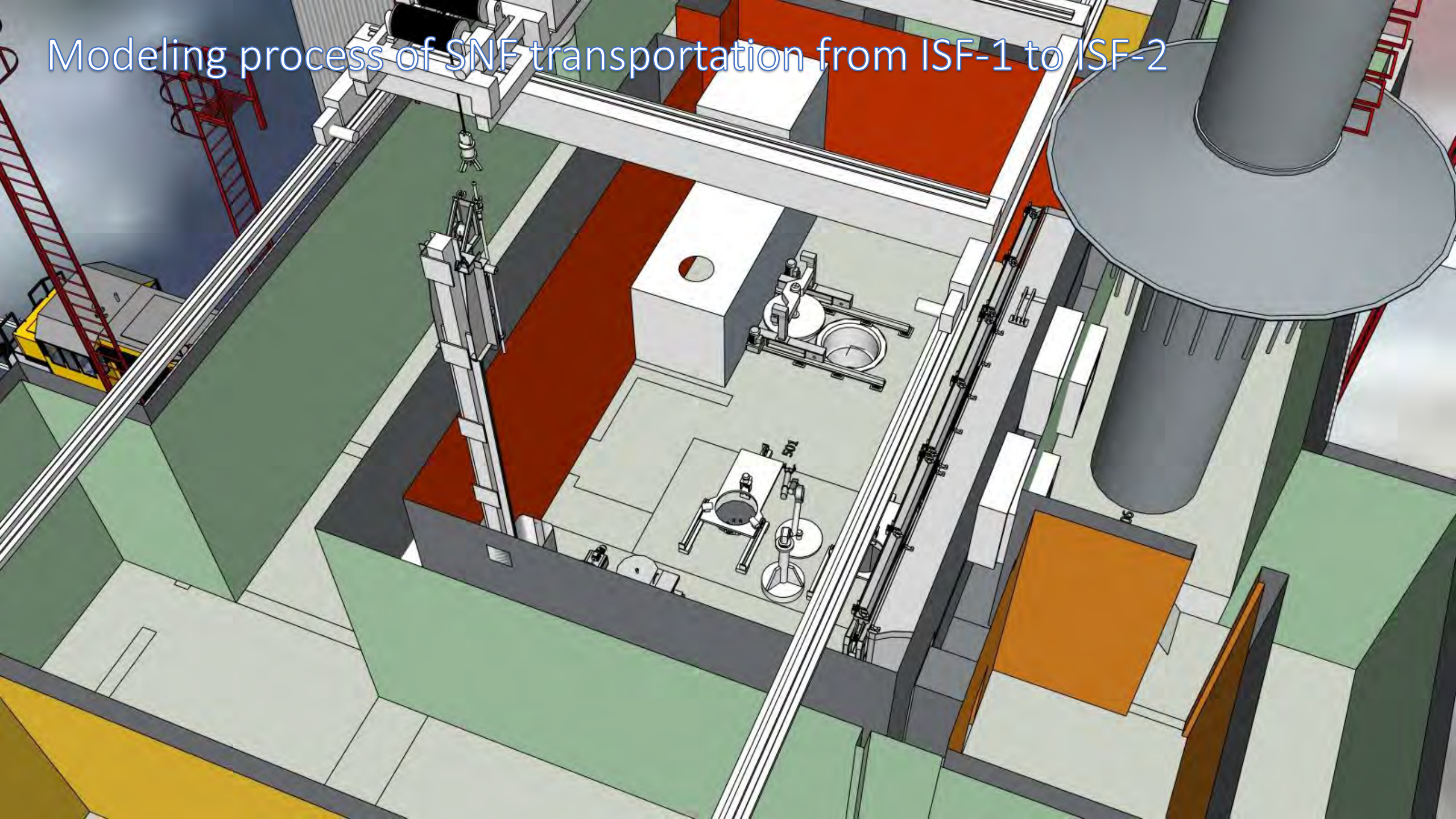
C3:

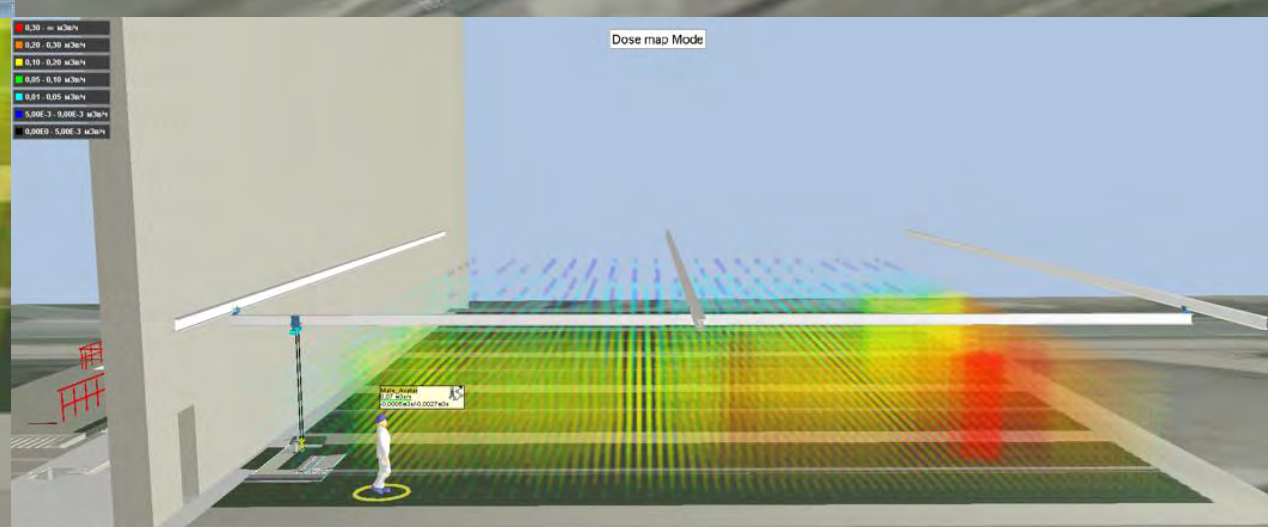
C1:

C4:



Modeling process of SNF transportation from ISF-1 to ISF-2





Thank you for your attention!