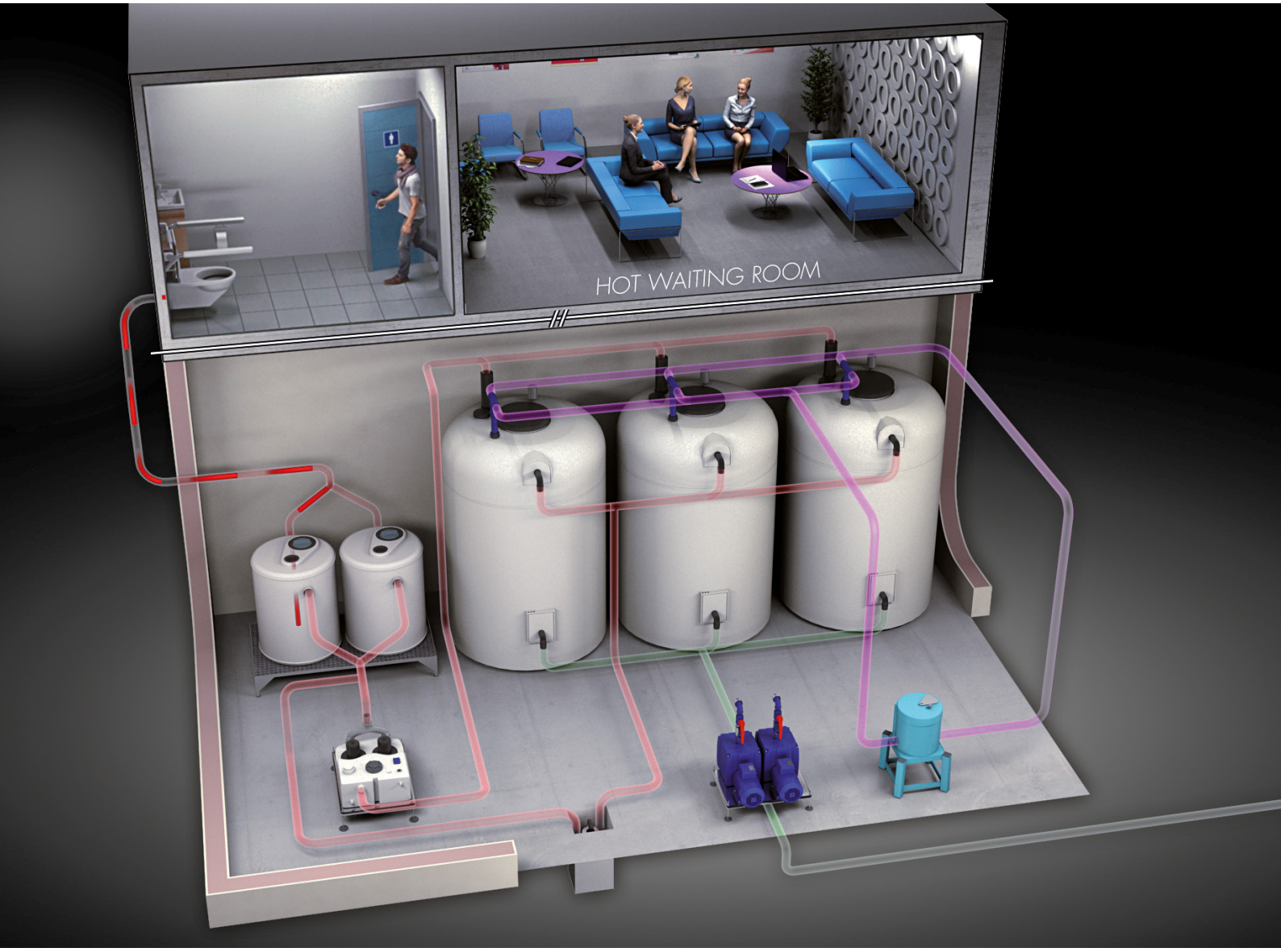
ISP

DISPOSAL SYSTEM FOR RADIOACTIVE ORGANIC WASTE WITH SEPARATE DECAY UNITS



SAFETY FIRST

RADIOPHARMA

COMECER

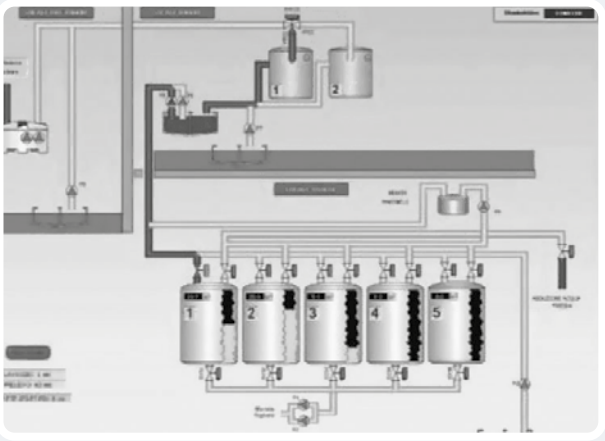
an ATS company

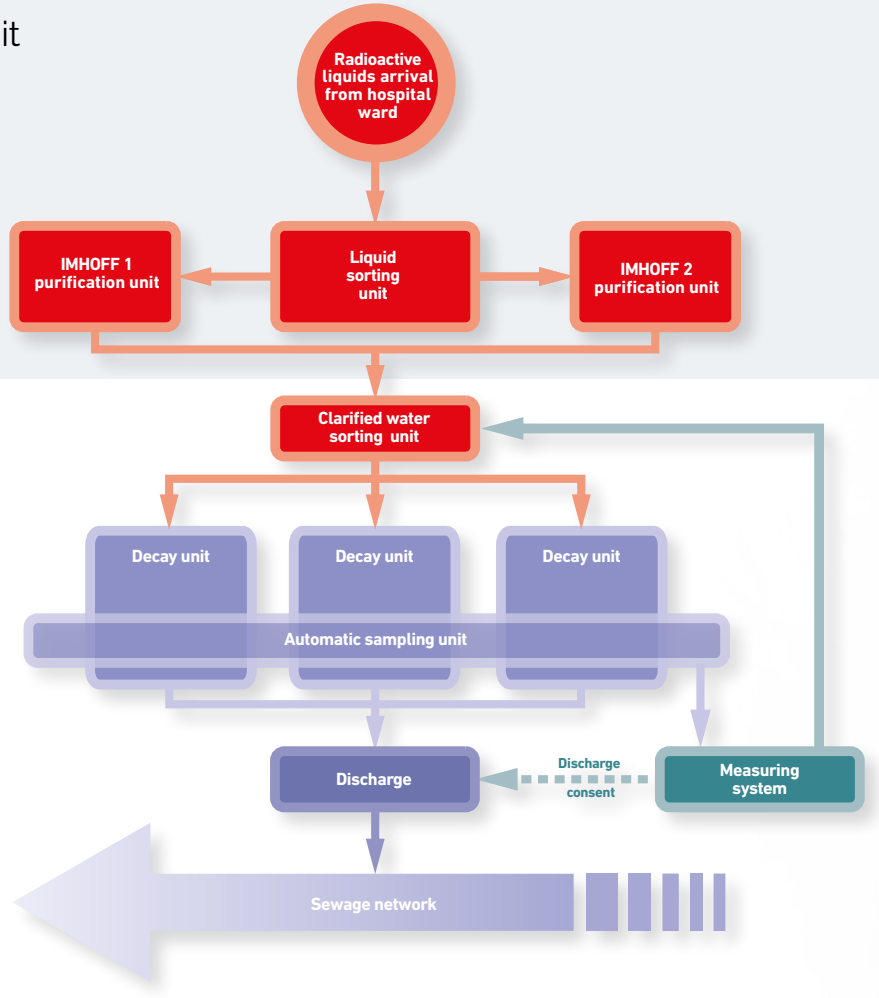
ISP

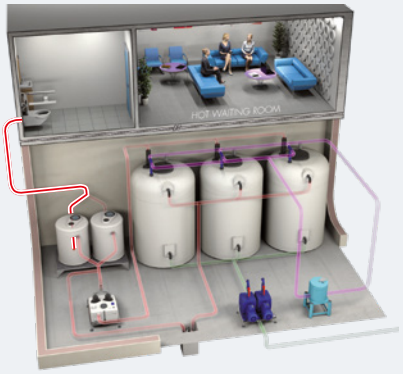
DISPOSAL SYSTEM FOR RADIOACTIVE ORGANIC WASTE WITH SEPARATE DECAY UNITS

The ISP – Radioactive Waste Disposal Plant is a system for the storage and the decay of organic wastewater deriving from the use of radioactive substances for diagnostic and therapeutic purposes within the health field.

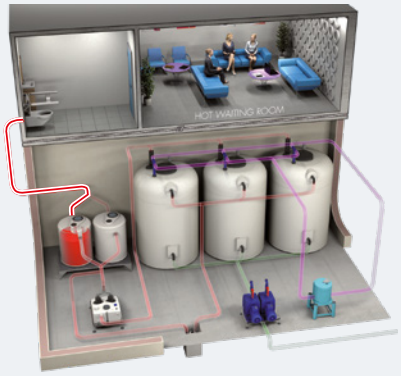
- Liquid sorting unit
- Imhoff purification unit
- Clarified water sorting unit
- Storage unit
- Decay unit
- Containment and overflow unit
- Sample collecting unit and washing circuit
- Discharge and lifting unit
- Power and control unit
- Pneumatic supply unit



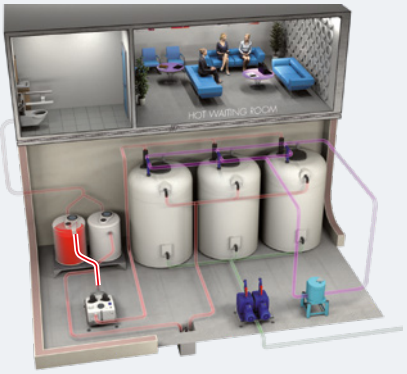




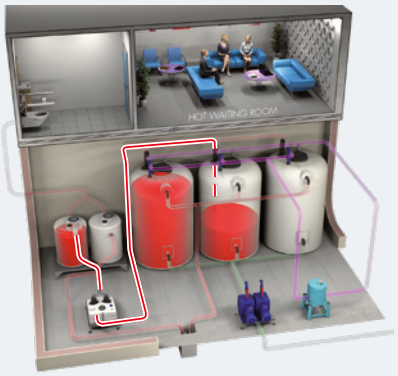
1) **Liquid arrival from department and liquid sorting unit:** organic waste from the department is sorted at the first or second imhoff.



2) **Purification unit:** treatment of waste coming from the department with separation of solid part and subsequent anaerobic biodegradation of the latter.



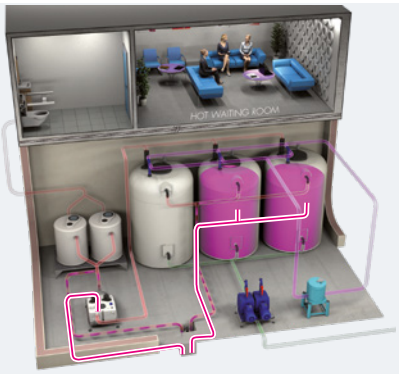
3) **Post imhoff lifting unit:** this unit is a compact and sealed tank with two electric submersible pumps and a system that prevents blockage of the impeller in the presence of large quantities of materials.



4) **Clarified water sorting at decay tanks:** this units allows collection and decay of radioactive liquid coming from the sorting unit.

5) **Automatic collecting and measuring unit:** the system measures the sample obtained from each decay tank.

6) **Discharge unit:** after sample measurement, if the activity and concentration levels are below preset values, the examined tank can be discharged by pressing the appropriate button on the control panel.



7) **Overflow unit:** it allows the collection of sewage that could come out of the tanks (for component breakage or level control failure) and transfer to sorting unit.

Play video
www.comecer.com/videos/isp

SLUDGE SORTING UNIT
The wastes coming from the ward are sorted to the first imhoff or the second one, thanks to a three-way manual deviation system. A signal on the control panel indicates the sorting completion to the operator. Upon the customer's request, it is possible to equip the system with a three-way automatic valve which permits to carry out the sludge sorting from the control panel.

IMHOFF PURIFICATION UNIT
Treatment of the ward wastes, with the separation of the solid part and its anaerobic biodegradation.

CLARIFIED WATER SORTING UNIT
The sorting unit collects the clarified water from the imhoff and sends it to the decay unit, according to a pre-set sequence.
When a decay unit is full, this part automatically identifies the successive empty decay unit available and sends the liquids up to it. With this method all the units are filled "in a parallel way" in a repetitive sequence, in order to avoid useless decanting among the tanks, and limit the course of the potentially radioactive water to the "shortest way possible" rule.
Moreover, it is always possible to use the control panel to: send the liquids into a tank other than the automatically selected one; shut a tank off and make it anaerobic biodegradation.

CLARIFIED WATER SORTING UNIT
The sorting unit collects the clarified water from the imhoff and sends it to the decay unit, according to a pre-set sequence.
When a decay unit is full, this part automatically identifies the successive empty decay unit available and sends the liquids up to it. With this method all the units are filled "in a parallel way" in a repetitive sequence, in order to avoid useless decanting among the tanks, and limit the course of the potentially radioactive water to the "shortest way possible" rule.

Moreover, it is always possible to use the control panel to: send the liquids into a tank other than the automatically selected one; shut a tank off and make it invisible to the automatic sorting unit; or fill a decay unit partially or at different times.

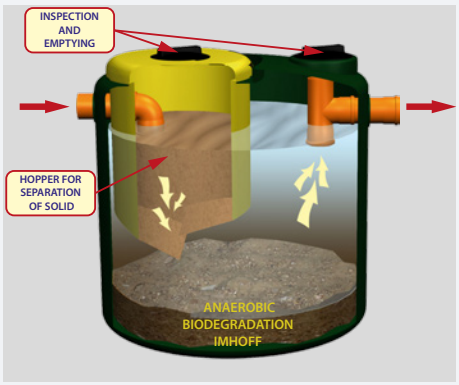
STORAGE UNIT – DECAY UNIT
This unit collects and decays the radioactive liquids coming from the sorting unit.

RESTRAINING AND OVERFULL UNIT
It collects the sludge which could have leaked from the tanks or IMHOFF (due to the breakage of a component or the non-functioning of the level controls), and sends it to the sorting unit.

REMOTE MANAGEMENT OF THE COMPUTERISED CONTROL PANEL
It is possible to control and manage the disposal equipment with an interface.

An overview software installed on a Personal Computer schematically reproduces the equipment and makes it possible to monitor its condition.

From this panel it is possible to easily carry out all the operations necessary to manage the equipment, especially:
- the selection of the loading tank;
- the activation of the sample taking circuit;
- the activation of the discharge unit (with password);
- the semi-automatic selection of the tank to fill;
- sample taking from any tank;
- the activation of the overfull collection chamber pump and other collection pumps;
- the activation of the washing circuit.



COMECER
an ATS company

COMECER S.p.A. - Via Maestri del Lavoro, 90
48014 - Castel Bolognese (RA) - Italy
t: +39 0546 656375 - f: +39 0546 656353
comecer@comecer.com - www.comecer.com