The plant has introduced improved equipment and procedures to perform quality control and safe replacement of resins in ion exchanger vessels, thus improved the reactor safety aspects and volume of waste generation.

A mobile ion exchanger vessel is used to flush and if necessary saturate the resin with requisite chemicals outside the process area of use. This leads to the following advantages:

- Elimination of reactor safety risks concerning deboronation of reactor coolant when resin beds are put into service.
- Reduction of waste water to flush the bed before putting into operation.
- Avoiding combustible packing material brought into the plant, mainly to the controlled area.
- Elimination of the risks that packing material would fall into resin vessels during filling.
- Shortening of system and component outage time.
- Simplified control of impurities during flushing and saturation of resin.

The power plant uses an intranet database with approved suppliers and safety data sheets of materials and products to be used on site. This Intranet database, which is managed by the technical operations unit, allows Nogent NPP to share information with all NPPs of EDF.

The corporate laboratory group supplies specifications for chemical conditioning products like resins, hydrazine etc. to guarantee that these products have no negative impact on corrosion, activity build-up and safety. These products are PMUC certified (products and materials to be used on nuclear plants).

PMUC is available in the EDF Intranet database and contains chemical specifications of the products, characteristics of approved suppliers, e.g. the expiry date of the validation granted to the supplier and address of contact.

For every product safety data sheets are kept up to date.

The Intranet guarantees a real time information feedback e.g. if a supplier does no longer meets the expectations.

As the database is accessible from any office, appropriate products are used systematically and traceable.

The team regarded the use of this database as a good practice.
Incompatibility matrix for storing chemical products in chemical laboratories.

The displaying of the matrix in all storage areas of the chemistry laboratories has brought about quick and seamless improvements in industrial safety and the storage of chemical and/or dangerous products.

The incompatibility matrix for storing chemical products is included in the Memento booklet, nuclear safety and quality expectations. It is also found on each storage cupboard for dangerous products in the chemistry laboratories.

The principles for storing dangerous substances are described in detail in the CHIRAD/00/028 procedure. The incompatibility matrix summarizes in a schematic way the elementary rules for storing chemical products. It is a quick and simple visual tool to know where a chemical product should be stored in relation to the risks pictogram(s) found on its label:

- Chemical products are classified in 6 risk categories:
  - Oxidan
  - Corrosive- acid
  - Flammable
  - Toxic
  - Corrosive- base
  - Harmful / irritant

- Flammable products should be stored separately from others.
- The acids should be kept separately from the bases.
- Harmful / irritant products and toxic products can be stored together.
- If a product has several risk factors at the same time, the following priority must be taken in terms of classification: oxidizing > flammable > corrosive > toxic > harmful/irritant.
The station has a department chemical control representative (DCCR) in all its departments. DCCR acts as a point of contact for the station chemical control coordinator when problems involving chemical product use, storage, labeling, or disposal arise and assists in resolving these problems. DCCR is also required to take corrective actions when gaps are identified in meeting chemical control requirements. DCCR coordinates the monthly chemical control locker inspections and assists personnel in the department with the purchasing process for chemical products. In addition, the following factors contribute to the successful chemical control programme at the station:

• Each storage area has a designated person whose responsibility is to assure that the handling, labelling and storing of chemicals is done in a proper manner. Ownership creates responsibility.

• The station chemical control coordinator does quarterly walk-downs together with the department chemical control representative to inspect storage areas for unauthorized or improper use of chemicals.

• The station has strictly followed the policy in labelling all the chemicals at the site (5 different types of labels).

• If chemicals have to be transferred to smaller containers, the secondary containers are available in various storage locations. These secondary containers are pre-labelled but also plant specific labels must be attached to the containers.

The benefit of this approach, as compared to the arrangement whereby the chemistry department is the only responsible organization for chemical control, is as follows:

• The responsibility for the chemical control and labelling is distributed throughout the departments using the chemicals.

• Departments have their own contact point to help personnel on a day-to-day basis regarding questions on handling, storing and labelling the chemicals.

• The station chemical control coordinator has a clear contact point in the other departments.