

PERSONAL INFORMATION

Francesco Troiani



Sex

| Date of birth

| Nationality

WORK EXPERIENCE

December 2016 – Onwards

Name and address of employer

SOGIN SpA – Via Marsala, 51c 00185 ROMA

Occupation or position held

Director of the “Technology Development and Innovation” Division

Main activities and responsibilities

As director of the “Technology Development and Innovation” division I am in charge of:

- managing the relaunch of the Group's market activities (Sogin, Nucleco), favoring its development in Italy and abroad;
- managing International Group Relations (Sogin, Nucleco), including relations with the Institutions (European Commission, EURATOM, European Parliament) and international organizations (OECD, IAEA, NEA, FORATOM...), identifying general and specific objectives within the company's strategy;
- manage and coordinating the part of national relations (Italian ministries, authorities,...) when it comes to developing the Group's international and market activities;
- supporting the company's Board of Directors in defining and implementing strategic development projects, coordinating the relevant corporate structures;
- developing and promoting, on the Italian and international markets, the training projects and programs of the Radwaste Management School, also promoting the organization of courses, seminars and workshops on issues of interest coming from the market.

Sector

Decommissioning of nuclear facilities, Waste Management and Nuclear Safety

November 2013 – December 2016

Name and address of employer

SOGIN SpA – Via Marsala, 51c 00185 ROMA

Occupation or position held

Director of the “Waste management and Decommissioning” (WMD) Division

Main activities and responsibilities

The WMD Division consisted of three main elements:

- 8 Nuclear sites, represented by all infrastructure, dismantling facilities, waste treatment facilities (existing and to be implemented) and storage buildings, with the specific objective of their safe and secure management, Implementation of waste management and decommissioning operational programs. The Sites are Bosco Marengo, Casaccia, Caorso, Garigliano, Latina, Saluggia, Trino and Trisaia.
- The Engineering Function, which has the task of providing specialist technical support to the development of activities, both within the WMD Division and other business divisions.
- Other technical support Functions, consisting of:

- Radiation Protection
- Budgeting
- Safety and management system
- Support for project co-ordination

As WMD Director I implemented sites decommissioning projects, maintained their safe keeping and the technical and licensing processes involved in them, adopting an integrated view of the dismantling programs; coordinating the specialized and technical activities in order to support the implementation processes. These tasks required effective and multidisciplinary management of activities, with the implementation of dismantling projects involving both technical aspects and organizational and management aspects.

Moreover I was responsible for the proper functioning of the Division for carrying out the activities entrusted to it, using all of the above listed Functions. I also coordinated cross-functional activities and functional interconnections between divisional and corporate units.

Together with the Heads of Functions listed above, from a managerial and organizational point of view I was in charge of:

- defining strategies, general plans and objectives for the revision and updating of the Multiannual Plan of Activities and the Decommissioning Programs;
- evaluating the effectiveness of implementation processes for achieving the goals and the adequacy of resources and leadership skills, by verifying that responsibilities are adequately assigned;
- assessing the state of safety and the necessary actions for a strong penetration of the safety culture, identifying opportunities for improvement,

and from a technical point of view:

- assessing the adequacy of process infrastructure and of waste treatment and storage facilities;
- assessing the adequacy of available technologies and knowledge, identifying the necessary partnerships for the implementation of new knowledge and technologies;
- defining, in collaboration with other divisions, participation in National and International Committees and Working Groups, with the aim of increasing internal competences and making organizational and productive processes in the company more effective and efficient;
- defining technical support for other divisions.

Sector

Decommissioning of nuclear facilities, Waste Management and Nuclear Safety

June 2012 – December 2013

Name and address of employer

NUCLECO S.p.A., Strada Provinciale Anguillarese n. 301, 00123 ROMA

Occupation or position held

President of the Board of Directors and In Site representative of the Nulla Osta holder (ENEA).

Main activities and responsibilities

Due to the resignation of the previous board of directors appointed on May 11, 2010, I am back again in Nucleco from the 4th of June 2012, with the same powers and duties of the previous mandate (2007-2010, see below), and keeping as interim the currently position in ENEA.

As president of the board of directors, over the duties established by law, on operational mandate of the board of directors I am responsible, in co-operation with CEO, for: (1) defining the technical guidelines for the management of the nuclear facilities of the Company, (2) coordinating technical and scientific activities for the safely conduction of the nuclear installations, (3) Radioprotection of the involved workers and populations, (4) keeping the technical-scientific relationships with international organizations, institutions, research centres and universities, ENEA and other relevant institutional bodies for the definition of technical norms in the areas of competence.

Since Nucleco operates with licenses of ENEA, I have also assumed the role of licensee on behalf of ENEA and I have been provided with a special power of attorney by ENEA as "Procurator and in Site representative of the Nulla Osta's holder", for the management of nuclear installations of Nucleco, management of nuclear safety and the protection of workers and the population in compliance with Italian law and European directives, as specifically required by the authorization.

In this peculiar position of "In site representative of the Nulla Osta's holder (ENEA)", the first levels

of organization and the CEO, with a staff of about 70 people are depending directly to me. These persons are dedicated to the development of nuclear activities on the Nucleco site. While for the remaining 100 people who are in different external sites where operations of remediation and nuclear services are in place under the CEO responsibility, I take care of their nuclear safety and radioprotection in collaboration with the CEO, according to the mandate of the Board of Directors.

In this function, I directly report to the Commissioner ENEA every six months and to the Board of Directors of Nucleco every three months.

By its nature, in the site of the Casaccia, Nucleco performs under my coordination and responsibility the treatment and conditioning of radioactive waste (solid and liquid) and radioactive sources. Treated waste arising from non-electronuclear installations is stored at the Nucleco facilities and the title of property is passed to ENEA.

The radioactive waste from the decommissioning of nuclear installations are returned to its rightful owner after the transport in Nucleco, radiological characterization for the purpose of the inventory, processing and packaging, with release of the non-radioactive components.

Then in this position, my responsibilities are related to the:

- operating in safe condition of the nuclear installations, including accident prevention and detection, and directing intervention measures where necessary,
- organization of units, including technical and human resources aspects, and establishing adequate formation,
- definition of processes to be applied (efficient, effective and economic), in compliance with the relevant legal obligations and licensing requirements,
- release of cleared effluents and wastes, coordination of the licensing processes.

Sector

Decommissioning of nuclear facilities, Waste Management and Nuclear Safety

May 2010 – November 2013

Name and address of employer

ENEA - Saluggia Research Centre
Italian national Agency for new technologies, energy and sustainable economic development,
Lungotevere Thaon di Revel n. 76, 00196 ROMA

Occupation or position held

DIRECTOR OF RESEARCH

Main activities and responsibilities

From May 11, 2010, after three years mainly engaged in the presidency of the company Nucleco (see below) and in the management of its nuclear waste treatment and conditioning installations, I returned to the national agency for new technologies, energy and sustainable development.

At first, I was involved in several bilateral agreements between ENEA and other scientific organization (national and international) and I had the responsibility to coordinate scientific projects in the nuclear field (both safety and security), energy and related technologies, for a competitive economy, a sustainable development and the protection of population and environment. I am also participating at the research and development programs on the nuclear lead-cooled systems, on the innovative nuclear fuel cycles, and new technologies for the characterization, conditioning and disposal of radioactive waste.

Due to my past experience on the decommissioning programme in ENEA, strengthened in NUCLECO and in the Technical Commission for Nuclear Safety and health protection against ionizing radiation (see later), I was asked by the commissioner of ENEA to provide technical advice and check the state of progresses in the dismantling of the nuclear research reactor RB3 Montecuccolino (Bologna).

On **February 14th, 2012** at ENEA I had a new formal assignment (UTTS: **Unità Tecnica Tecnologie Saluggia**) directly under the Commissioner ENEA "to ensure the achievement of technical and scientific objectives related with the agency ENEA in the north-west of Italy as defined by the governing bodies and in line with the general objectives of the agency" and to "provide technical and scientific support to the top management of the Agency in defining the objectives of the agency in its area of competences, with particular emphasis on scientific and technological aspects and opportunities".

In this function I have a staff of about 30 persons, which are integrated, from time to time, by the other Technical Units of ENEA. In my coordination action often I am asked to form highly specialized and multidisciplinary groups for the execution of project activities. In this context, I am also responsible for the management of a training program (2011-2015) developed by ENEA in consortium with the **European Nuclear Safety Training and Tutoring Institute (ENSTTI)** for the development (by Training and Tutoring) of the Nuclear Regulatory Authorities (NRA) and their Technical Support Organization (TSO) in non-EU countries.

In this field I have also the duty for scientific advising to the Italian institutions. I represent Italy at the **International Framework for Nuclear Energy Cooperation**, for both WGs on "the Infrastructure Development" (IDWG) and "the Reliable Nuclear Fuel Services (RNFSWG)" and I am Member of the **Governing Board of the Sustainable Nuclear Energy Technology Platform (SNETP)**

At the OECD-NEA I am in the **Nuclear Science Committee (NSC)** and in the **Working Party on Scientific Issues of the Fuel Cycle (WPFC)**. I am also continuing my participation in the Steering Committee of the **European Safeguards Research and Development Association (ESARDA)** for the research and development of new Nuclear Safeguards Systems and I represent ENEA on the **Scientific Council of the Italian Nuclear Association**.

Under the Ministry for the Economic Development coordination, from 2004 I have assumed the responsibility for carrying out the technical activities for the **implementation in Italy of the Additional Protocol** between the EU member states and the International Atomic Energy Agency, in execution of the Article III, Paragraphs 1 and 4 of the Non-Proliferation Treaty.

In addition and with the permission of the Agency for **professional independent activities**, I was technical collaborator (period 2010-2012) of the PROTEX S.p.A. (via Cartesio 30, 47100 Forlì) for improving the efficiency of industrial processes in its plants for radioactive waste treatment with a turnover approaching 5 million of Euro, and collaborator (2011) of AMIU-Genova S.p.A. (via D'Annunzio 27, 16121 Genova) for the selection of international firms for the preliminary and final design and environmental impact study for the construction of the municipal waste treatment plant of Genova city, for a value of about 6 million of Euro.

In this context, I have also been several times **consultant to the prosecutor's office** for the application of scientific and technical regulations in the nuclear field, in connection with legal proceedings.

Sector

Decommissioning of nuclear facilities, Waste Management and Nuclear Safety

Since 2000 – Onwards

Name and address of employer

European Commission, Joint Research Centre, Brussels

Occupation or position held

Member of the Advisory Group of **Independent Experts to assist the JRC sites (Ispra, Geel, Petten and Karlsruhe) with the execution of the Action Plan on Historical Liabilities**, with the permission of the Agency for professional independent activities.

Main activities and responsibilities

Half-yearly technical-economic evaluation of the action plan on historical liabilities and decommissioning plans of the obsolete installations of the Joint Research Centres of Ispra, Geel, Petten and Karlsruhe and report to the Board of Governors.

In such context, as EU independent expert in 2008 I was also called for supplying technical assistance to the Internal Audit team in reviewing the means for Nuclear Site Laboratories at the JRC Ispra and in 2011 for performing an in depth review on the completeness of the decommissioning programme, the feasibility of the technical options chosen, the suitability of the planned project sequence and the coherence of the overall cost estimate with the figures as presented in COM(2008) communication and the justification of possible deviations, if any were foreseen.

In this activity we are evaluating the economic value of activities for several hundreds million Euro over a period of about 13 years.

Sector

Institutional

April 2011 – Onwards

Name and address of employer	Ministry of Education, University and Research, Department of the university, the higher artistic, musical and dance for Research - Directorate General for Coordination and Research Development, Piazzale Kennedy 20, 00144 Rome
Occupation or position held	Scientific Expert at the Ministry of Education, University and Research
Main activities and responsibilities	Technical and scientific evaluation of the industrial research projects submitted in response to the Decree on measures for industrial research, within the National Operational Programme "Research and Competitiveness" 2007-2013. In this context, I have the task of carrying inspections in order to verify the veracity of the declarations, the progress of the projects and eligible costs. In this activity, currently I have to evaluate and control industrial research projects for the sustainable development of environmentally friendly production facilities for a total value of around 20 million Euros. Staff is provided, from time to time, by the Ministry.
Sector	R&D and industrial implementation

October 2011 – February 2012

Name and address of employer	Regione Basilicata, Via Vincenzo Verrastro, 5 85100 Potenza (Italy)
Occupation or position held	Coordinator of a group of experts on behalf of the administration of the Basilicata Region for the evaluation of the decommissioning plan of the ITREC reprocessing plant.
Main activities and responsibilities	Assessment of project presented by national nuclear operator and its compliance with the criteria and the rules of nuclear safety and radiation protection and expression of a formal opinion to the local government, with reference to Articles 55 and 56 of the Decree 230/95.
Sector	Institutional

July 2007 – May 2011

Name and address of employer	I.S.P.R.A. - Via Vitaliano Brancati, n. 48, 00144 ROMA
Occupation or position held	Member of the Technical Commission for Nuclear Safety and health protection against ionizing radiation , established by the Prime Minister under Article. 9 of the Decree 230/95, within the Italian Authority Control (I.S.P.R.A.).
Main activities and responsibilities	Technical assessment of projects presented by national nuclear operators and their compliance with the criteria and the rules of nuclear safety and radiation protection and expression of formal opinions to the Control Authority and to the Regulatory Body.
Sector	Control Authority and Regulatory Body

June 2007 – May 2010

Name and address of employer	NUCLECO S.p.A., Strada Provinciale Anguillarese n. 301, 00123 ROMA
Occupation or position held	President of the Board of Directors and legal representative of the licenses ENEA of nuclear installations in NUCLECO
Main activities and responsibilities	As president of the board of directors, over the duties established by law, I was responsible, in co-operation with CEO, for: (1) defining the technical guidelines for the management of the nuclear facilities of the Company, (2) coordinating technical and scientific activities for the safely conduction of the nuclear installations, (3) Radioprotection of the involved workers and populations, (4) keeping the technical-scientific relationships with international organizations, institutions, research centres and universities, ENEA and other relevant institutional bodies for the definition of technical norms in the areas of competence. I also represented NUCLECO in the Board of Directors of the Italian Nuclear Association. Since Nucleco operates with licenses of ENEA, I assumed the role of licensee on behalf of ENEA and I was responsible for conducting nuclear plants and laboratories, according to law, safety and

security and protection of workers and populations.

Duties and responsibilities are the same as reported before in the description of the current mandate.

In this frame, I renewed the nuclear authorizations as specifically requested by the Italian Decree 17 March 1995, n. 230 (unification of a dozen different nuclear permissions in a single Nulla Osta) and I got other new authorizations for the environmental protection (discharge of liquid and gaseous effluents), as specifically requested by the Italian Legislative Decree 3 April, 2006, n. 152 (Environmental Regulations).

I got the new nuclear authorization (Nulla Osta) April 15, 2010, closing a file opened for almost 10 years.

In this function, at the beginning of mandate I had a staff of about 100 people that I increased to about 180 people at the end of my mandate.

Sector

Decommissioning of nuclear facilities, Waste Management and Nuclear Safety

April 1986 – May 2010

Name and address of employer

ENEA - Saluggia Research Centre
Italian national Agency for new technologies, energy and sustainable economic development,
Lungotevere Thaon di Revel n. 76, 00196 ROMA

Occupation or position held

Starting as a young researcher, I had several positions up to the position as Director of Research.

Main activities and responsibilities

The various positions held, in several circumstances were in overlapping with other tasks, within or outside my organization.

Over the past 5 years, two were the most important positions, partly in combination with Presidency of NUCLECO, as follow:

1. **President of the coordination committee for nuclear activities (14 October 2008 up to 9 September 2009);**
2. **Assistant of the Fusion and Fission Department Director in the managing of nuclear national and international programme (1 April 2005 up to 13 October 2008).**

As President of the **coordination committee for nuclear activities**, reporting directly to Director General and in collaboration with institutional and industrial stakeholders, my duties were to coordinate the energy scenario studies for the exploitation of nuclear energy in Italy and the comparative analysis of the technology options, for the sustainability and affordability of the nuclear energy, providing also an overview of technical and scientific resources to rebuild the necessary skills.

With about 10 collaborators, I also coordinated studies and analyses of the technical elements necessary to identify and characterize suitable sites for new nuclear installations and development of qualification processes of the local companies for their return to the nuclear field.

The results of the studies and analyses were published in the book "**Nucleare da Fissione: Stato e prospettive**", in which I am co-author and are reported elements for decision-makers about competitiveness and sustainability of different sources of energy, advantages and risks for the environment and population, safety and security issues.

I was also co-author together with some Italian stakeholder of two books, and respectively "**Energia Nucleare in Italia: rapporto preliminare sulle condizioni per il ritorno all'energia nucleare in Italia**" (2008) and "**Energia Nucleare in Italia: come proseguire il percorso - Aspetti economici, Ciclo del combustibile, Costi di investimento e di generazione**" (2011).

As Assistant of the Fusion and Fission Department Director in the managing of nuclear national and international programme, I assumed the responsibility to coordinate specific lines of activities and to advise the Italian Institution in nuclear field.

In this frame, I had the same kind of duties as above described and the coordination of the departmental programs on the nuclear fuel cycle and nuclear technology application to human health, fostering international cooperation (e.g.: ESA, JRC, CEA, etc.) and assuming the

responsibility of the ENEA's activities in the **Coordination Action PATEROS (PARTitioning and Transmutation, European ROADmap for Sustainable nuclear energy)** for the implementation in Europe of the P&T technologies.

I continued, also, to be a member of the **Working Group on Nuclear Power Sources for Space** (under the mandate of the European Commission and with support of ESA and the Member States) to "draw up a European space policy" and to "coordinate the efforts needed for the exploration and exploitation of space".

I was also involved in the research and development programme of the Directorate General for the Energy and the Mining Resources of the Italian Ministry for the Economic Development in relation to the individuation of a near surface disposal for medium and low active radioactive wastes.

3. **Assistant of the Director General of ENEA for the coordination of all fission nuclear activities (1 January 2005 up to 31 march 2005) and assistant of the President of ENEA, Prof. Carlo Rubbia, for programmatic and strategic activities (12 May 2005 up to 28 July 2005).**

4. **In this frame also Director General of ENEA as interim position (17-23 June 2005)**

The main duty was to prepare strategic and programmatic plans, as indicated by the Board of Directors and under the directives of the Director General. These plans were discussed with the heads of departments (both technical and administrative) and then submitted to the approval of the President (prof Carlo Rubbia, Nobel prize for physics).

In this period, due to my role as coordinator of all activities in the field of nuclear fission, together with other European partners and the JRC-Ispra, I participated at the reconstitution of the **European SAFeguards Research and Development Association (ESARDA)** for the research and development of new Nuclear Safeguards Systems, and I was nominated ENEA representative in the Steering Committee.

In addition, at the end of the mandate of the Director General, Carlo Rubbia wanted me first as his **assistant for programmatic and strategic activities** and then in the position of **interim Director General**, for the necessary time to elect a new one by the Board of Directors.

I was also (2005-2006) lecturer at the NATO SCHOOL for semester courses on **Environmental Protection for Military Forces**.

5. **Director of the Radioactive Waste Management and Decommissioning Unit (4 April 2001 up to 31 December 2004) (Grande Servizio Paese 2 – Trattamento e Condizionamento Rifiuti Radioattivi)**

As Director of the ENEA Radioactive Waste Management and Decommissioning Unit the main duties were to establish and operate under a specific quality assurance programme a strategic and synergic plan for the treatment, characterization and conditioning of the waste streams arising from past activities, and for the safety maintenance and decommissioning of all obsolete nuclear installation of ENEA.

In the meantime, the Director of Unit was also asked continue through Nucleco the collection, treatment and disposal of radioactive waste arising from medical sector, research and industrial applications, giving overall guidance for their conditioning and temporary long-term storage.

In this frame, the priority operational tasks were to:

- organize the unit in order to define and operate the decommissioning programme in the most efficient, effective and economic manner,
- proceed immediately with the operational waste treatment and removal of nuclear materials, in full respecting of the Euratom Treaty and any other international obligations,
- safe manage of the nuclear installations and assure the full respect of legal obligations and proceed, where necessary, with the application of a new licensing dossier,
- prepare a Work Breakdown Structure for decommissioning plan, evaluate the costs to be allocated on the electric bill and manage all the operative phases, and
- maintain formal contacts and **participate in the activities of the Consortium SICN** (Smantellamento Impianti del Ciclo del combustibile Nucleare - Nuclear fuel cycle plant

decommissioning), established between ENEA, Fabbricazioni Nucleari SpA and SOGIN, with the aim of presenting to the Authority for electricity and gas the overall decommissioning plan in order to obtain funding from the electric bill.

This position was attributed to me, at first as interim to replace a colleague who had resigned, and on December 20, 2001 it was assigned permanently to me (*Grande Servizio Paese 2 – Trattamento e Condizionamento Rifiuti Radioattivi*), with special allowance and the role of manager (2002-2004), out of the ordinary employment contract ENEA. At the same time, I was put "in standby" from the position of researcher ENEA.

On February 6, 2003 for the quality of the work carried out, I was rewarded (productivity bonus) to the fullest extent permitted by my personal contract and subsequently, the individual contract was revised implementing the productivity bonus in the basic agreement.

In this period, given the huge work to be done also in terms of authorization, the Minister of the Environment asked for a **coordination system between the Control Authority (ANPA, today ISPRA), ENEA and SOGIN**, directly managed by the Heads of these organizations. The system was established on October 11, 2001, and I was asked to participate on behalf of ENEA. The results were submitted to the attention of the Minister for the Environment with periodic reports.

The Unit (RAD), with about 180 workers and an annual budget of approximately of 20 millions of Euro, was organised by me in four sections. Three of them, located in different ENEA's research centres, were dedicated at the nuclear installations management and their dismantling: (1) on the south of Italy, TRISAIA unit managed ITREC reprocessing plant (U-Th); (2) near Rome, CASACCIA unit managed Plutonium fuel fabrication plant and OPEC plant for post-irradiation tests; (3) on the north of Italy, SALUGGIA unit managed EUREX reprocessing plant (MTR and CANDU) and MOX fabrication.

The fourth section was the Radiochemical Laboratory, operating in Saluggia and Casaccia Centres, which was committed for the research and development activities and the set-up of measurement techniques and conditioning processes qualification.

Relating to these activities, which were funded by the Italian authority for electric energy and gas, I established a long-term programme (2001-2015) and managed the first 4 years under a detailed quality assurance programme with an overall budget of about 100 millions of Euro.

In this role, in the third years of my term, I had the duty to negotiate with SOGIN for the transfer of all liabilities relating to fuel cycle facilities of ENEA, with a long-term contract that provides for the return to ENEA of all sites completely decommissioned (green-field).

On 29.7.2003, having already prepared all the contractual documents between the Parties, I had the task of signing on behalf of ENEA all the documentation for the formal delivery of the ENEA nuclear plants to SOGIN and to complete the handover and technically support SOGIN for taking the full responsibility in the facilities management.

As I had defined in the contractual arrangements between the Parties, this last part was realized through establishing a **bilateral management committee** (August 1, 2003), where I have taken part until the end of my mandate.

During this period, due to the reduction in the amount of my work I was assigned to other activities, in addition to managing the facilities and laboratories not transferred to SOGIN

An another task was to coordinate the ENEA technical activities on nuclear filed and especially on the **Nuclear-Sub-critical Systems** (ADS and Waste Burner programmes), including an extensive use of accelerator technologies for radioisotope production and treatment of cancers and on the development of **Nuclear Propulsion Space Engine** (project 242, directly managed by Carlo Rubbia).

In this position, I had the responsibility to manage highly specialised research team and to steer the programming of human, financial and scientific resources of the Unit and also to coordinate large-sized group in an international and multidisciplinary framework.

In this period I was also responsible for providing support to the Ministry of Industry (now the Ministry of Economic Development) for implementing in Italy of the **Additional Protocol**, established under the Article III, paragraphs 1 and 4 of the Non Proliferation Treaty. Support was

provided to the Ministry both through the drafting of the laws and through an agreement between ENEA and the Ministry, which is still in operation and for which I still am the responsible in ENEA. For the great and professional work done in the start up phase, I received a formal appreciation from the Ministry.

6. Legal Representative as "employer" (under Decrees 624/94 and 230/95) of the ENEA's Research Centres of Saluggia and Ispra and offices of Turin and Milan (12 March 1998 up to 31 December 2004).

As Legal representative of the ENEA Research Centres of Saluggia and Ispra, and offices of Turin and Milan, depending directly from the Director General, I assumed the responsibility for the application of the Italian laws and regulations in the centre activities, medical surveillance of the workers, risk assessment, prevention and protection of risks in all the ENEA centres on the north-west of Italy (Ispra, Milan and Turin), over that of Saluggia where I was director.

For this function I had the power to represent the organization in the areas of my job and the power for expenditure of unlimited amount.

7. Director of ENEA Research Centre of Saluggia (from 1 April 1997 up to 31 December 2004 – since 4 April 2001 as interim position).

As Director of ENEA Research Centre of Saluggia, depending directly from the Director General, the main mission was to assure at the population and Authorities that risks associated with centre activities were under control and were developed in compliance with national and international safety and safeguards standard.

The Director of the Centre, with about 30 staff and an annual budget of about 3 million Euro, was both the legal representative of the Centre and the administrative responsible of all the programmes, infrastructure maintenance and refurbishment, logistic, technical and scientific services, security and safety, physical protection, emergency plans, radioprotection and medical surveillance.

I also had specific tasks of **substitute of the President of ENEA for the security** in the centre of Saluggia and responsible for **processing personal data** and the power to **require building permits** on behalf of ENEA and to present projects in the field of **fire prevention** and to make **statements on the contributions to be paid to the state**.

In this position I provided administrative and technical support for the conception, development, implementation and monitoring of ENEA strategic plans and completed the decommissioning of nuclear fuel fabrication plant (IFEC).

In the reorganization of the energy department on May 14, 1997 the National Laboratory for Radioactive Waste Characterisation was passed under the direction Saluggia centre and I maintained the interim its direction until April 4, 2001.

I was also often asked to prepare reports and give advice to the Director General on issues of management of ENEA, such as the establishment of a system of financial management for the decommissioning of nuclear installations, which was then established and in which I was involved (Consorzio SICN).

The activities carried out in the Research Centre of Saluggia involved about 160 people (direct and indirect employed) working in different fields: Energy, environment, biology, conventional wastes, site remediation, nuclear fuel cycle, emergency situations, etc., and consequently to the flood of October 2000, I had also the duty of coordination of the refurbishment plan of the centre and the realization of a new system of hydraulic and physical protection of the centre (with an expenditure of about 17,5 millions of Euro) for nuclear installations protection.

8. Director of the ENEA National Laboratory for Radioactive Waste Characterisation (27 May 1994 up to 3 April 2001 - since 31 March 1997 as interim position).

As Director of the ENEA National Laboratory for Radioactive Waste Characterisation, under the Department of Energy (directly depending from the director General) the main duty was to constitute within ENEA (Research Centres of Saluggia and Casaccia-Rome) and manage a national reference laboratory for primary waste characterization, waste package characterization, development, implementation and qualification of conditioning processes in compliance with

national and international knowledge, best practices and standard.

In this frame the Director was also responsible of the nuclear infrastructures used for the various sections of the Laboratory, their efficiency and maintenance and refurbishing, safety and security aspect, radioprotection of worker and environment, personal administration, etc.

The National Laboratory, with a staff of about 40 people, was constituted and organised by me under specific QA Programme in three services, each one having its own specific know-how covering the field of waste characterisation and conditioning: DA, destructive radiochemical analyses on different waste forms (at the EUREX plant, Saluggia); NDA, passive neutron system and gamma spectrometric systems for conditioned and unconditioned wastes (at the C-III-43 plant, Casaccia-Rome); CETRA, conditioning processes development and qualification with respect of the Technical Guides delivered by national and international Authorities (at the C-III-24 Laboratory, Casaccia-Rome).

The laboratory also had the important task of establishing in Italy a system of reference material and analysis methodologies and standards of measurement in the field of materials and radioactive waste.

The laboratory was also the "Contact Point" of the Security Department of "Ministry of Interior" against the illicit trafficking of nuclear and radioactive materials and provided external services for the radioactive material characterization and radiopharmaceuticals certification in Italy and in foreign countries.

Since 1994, the Laboratory was one of the constitutive members of the European Network of Testing Facilities for Quality Checking of Radioactive Waste Packages (EN-TRAP); this network was devoted to joint activities related to the verification of conformity of conditioned radioactive waste with regulatory specifications and criteria. Its objectives were to promote and facilitate collaboration in the development, application and standardisation of quality checking for waste packages.

In this frame, I was in the steering committee of the network and convenor of Working Group for Destructive Analyses.

9. *Researcher and Head of analytical laboratory of the EUREX reprocessing plant (from 2 April 1986 up to 26 May 1994).*

As researcher at the Nuclear Research Centre ENEA of Saluggia the main duty was to develop analytical methodologies for nuclear fuel cycle control, implement analytical methods and procedures for sampling and determination of radionuclides in nuclear material and primary waste streams, during reprocessing campaign of spent fuel and waste treatment and conditioning.

As **head of the analytical laboratory** of EUREX reprocessing plant, I was engaged in the nuclear material management and nuclear waste treatment. I was also asked to manage the Laboratory under an appropriate Quality Assurance programme and adequate Quality Control procedures.

Since the main part of the Laboratory was held in the controlled areas of the EUREX plant in Saluggia, I was obliged to acquire first the **Certificate of competence for the technical supervision of EUREX** reprocessing plant and later the **Certificate of competence for the technical direction of Nuclear Installations**. For the section of the plant where the laboratory was held, I was also asked to take care about safety condition, radiation protection, confinement of radioactive materials, ventilation maintenance, treatment of laboratory off-gases and related systems maintenance.

Sector

Decommissioning of nuclear facilities, Waste Management and Nuclear Safety

March 1985 – January 1986

Name and address of employer

Italian Armed Forces, Caserma Pasquali, L'Aquila

Occupation or position held

Lieutenant of the Corp of the Engineers in the Italian Armed Forces, after 6 months of Military school, starting on 09 October 1984

Main activities and responsibilities

Command of Platoon special equipment for military logistics and civilian protection

Sector Armed Forces

EDUCATION AND TRAINING

February 1990 – February 1992

Title of qualification awarded

Certificates of competence for the Technical Direction of nuclear plants
Attestato di idoneità alla Direzione tecnica degli impianti nucleari n. 03/56/D, issued 24.05.1994
Certificates of competence for the Supervision of EUREX plants
Patente di abilitazione alla conduzione tecnica di impianti nucleari, n. 03/102/D, issued 16.06.1992

Principal subjects/occupational skills covered

Internship on the EUREX plant, pursuant to DPR 1450/70: Physical and Chemical Sciences in nuclear field; Nuclear techniques and their impact on the environment; Radioprotection; Physical and chemical processes in nuclear fuel cycle; Handling of radioactive materials; Nuclear material and radioactive waste management; Reprocessing of nuclear spent fuel; International and National laws, norms and technical guidance for nuclear installation; Nuclear facilities management according to the law; Organization of the job in nuclear field; IAEA Standards; NPT and safeguards; EURATOM regulations; Nuclear accountancy; Nuclear safety and security, etc.

Name and type of organization providing education and training

ENEA, as nuclear operator, under supervision of Labour Inspectorate and National Regulatory Authority, with final examination by the Authority

Level in national or international classification

License is compulsory for the Italian law (D.P.R. 1450/70) for assuming the legal responsibility in the Nuclear Plant Management

28 March – 7 April 1989

Title of qualification awarded

Radioprotection Fundamentals (recommended for the above qualification)

Principal subjects/occupational skills covered

Nuclear Physics; Radioactivity; Radioisotope production; Nuclear and isotopic techniques; Radioactive sources and their use; Ionizing radiations and their impact on the human and environment; Radioprotection, etc.

Name and type of organization providing education and training

JRC - ISPRA courses

24 October – 21 December 1988

Title of qualification awarded

Waste management training - Preparatory for the above qualifications (as practice)

Principal subjects/occupational skills covered

Management of radioactive materials; Waste management; Radioactive inventory of waste streams; Radioanalytical Chemistry; Characterization of radioactive wastes; Conditioning of radioactive wastes; Qualification of matrices for radioactive waste conditioning (Glass, Cement, Bitumen); Vitrification plant (PAMELA) operation and work in shift; Underground waste disposal, etc.

Name and type of organization providing education and training

BELGOPROCESS - MOL (B) - within Italian-Belgian cooperation programme

1 May 1987 – 31 October 1987

Title of qualification awarded

Training on reprocessing of nuclear spent fuel - Preparatory for the above qualifications (as practice)

Principal subjects/occupational skills covered

Nuclear Chemistry; Radioanalytical Chemistry; Radionuclide separation Chemistry; Handling of radioactive materials; Spent fuel management; Reprocessing of nuclear spent fuel; Reprocessing plants and methods; Fissile material management; Nuclear accountancy; Safeguards; Nuclear safety and security; EURATOM Regulations; IAEA standards; etc.

Name and type of organization
providing education and training

DWK - WIEDERAUFARBEITUNGSANALGE, KARLSRUHE (D) - within Italian-German
cooperation programme

October 1976 – 17 April 1984

Title of qualification awarded

Graduation in Industrial Chemistry, with full marks (110/110) and "cum laude" (5 years
courses plus 2 years of experimental thesis of laurea) and Certificate of Professional Qualification
in Chemistry

Principal subjects/occupational skills
covered

Mathematics, Physics, Inorganic chemistry, Organic chemistry, Physical chemistry,
Thermodynamics, Industrial Chemistry, Chemical plants, Chemical processes, Analytical
chemistry, Laboratories, etc.

Name and type of organization
providing education and training

Università degli Studi di Pisa (I)

Level in national or international
classification

Certificate of Professional Qualification in Chemistry is compulsory for official signatures

1971 - 1976

Title of qualification awarded

Secondary school diploma in Industrial Chemistry (5 years), with full marks (60/60)

Principal subjects/occupational skills
covered

Mathematics, Physics, Inorganic chemistry, Organic chemistry, Physical chemistry,
Thermodynamics, Industrial Chemistry, Chemical plants, Chemical processes, Analytical
chemistry, Laboratories, etc.

Name and type of organization
providing education and training

Istituto Tecnico Industriale Statale di Teramo (I)

PERSONAL SKILLS

Mother tongue(s)

Italian

Other language(s)

English

French

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
C2	C2	C2	C2	C2
A2	A2	A1	A1	A1

Social skills and competences

As the centre's director and legal representative of the centres I have often been called upon to reassure the population and local authorities that the activities of the centre were under control and developed in accordance with national and international safety standards. In this context, I have gained experience in communications and learned to use simple language understandable also to the layman.

To this end, at the beginning of my mandate, I attended numerous seminars and training courses and the internal communication units also supported me. The participation at numerous conferences has taken me to learn how to deal with the public and to attract the attention.

My ability to communicate has been further refined in recent years, on one hand, participating to important conferences and meetings at international level and, secondly, through the participation at TV broadcasts or writing newspaper articles.

In managing R&D projects on the development of Accelerator Driven System for the incineration of nuclear waste and on the Nuclear Propulsion Space Engine and in NUCLECO, I acquired the

attitude and the ability to coordinate large and multidisciplinary teams in an international context, working with people of different cultures and backgrounds.

In my long career I had numerous contacts with the institutions, the central authorities and politicians and I have had several suggestions on how to do my job. In this context, I also had requests in conflict with my ethics and mandate. I learned to deal politely but firmly to these people.

Under my coordination, ENEA has performed the conveyance of the management and historical liabilities of the obsolete fuel cycle facilities to another Organisation. Great part of Saluggia's research centre and the main part of my job were lost. Nevertheless, this has been for me the most exciting experience of negotiation and implementation of legal norms in the nuclear field, considering both the human aspects of the staff and the interest of my organization.

In the roles of director of large unit or president of company, I have often found myself in condition to make important decisions and to develop medium and long-term strategies. In all activities managed and strategic decisions I have always had the goal to involve my staff deeply for his contribute and professional growth. In this context, I learned how to motivate people and to mediate the disputed positions to reach a common one widely shared.

Thanks to these personal characteristics that I achieved important objectives. As director of the decommissioning unit in four years I carried out activities for about 100 million Euros while as director of the centre I could rebuild the hydraulic protection of the Saluggia centre, after the flood of the 2000, in just six months, keeping the centre in a safe condition. In NUCLECO within three years of my first mandate, I increased revenues and occupational levels of more than 50%.

Organizational skills and competences

At the ENEA's research centre of Saluggia, where I arrived to be centre director, in 7 years of directorate I have got the best opportunity to gain experiences in the nuclear facility organisation and in the management of complex infrastructures.

The director of the centre was both the legal representative of the centre as formal "Employer" and then responsible of all the scientific programmes, infrastructure maintenance and refurbishment, logistic, technical services, security and safety, physical protection, emergency plans, radioprotection and medical surveillance. In this position, I gained the best organisational experiences in providing administrative and technical support for the conception, development, implementation and monitoring of ENEA strategic plans.

At the ENEA's research centre of Casaccia, where I was director of the radioactive waste management and decommissioning unit, I gained new experiences, also as Research Director, applying Quality Assurance programs and assuming the responsibility to manage highly specialised research team and to steer the programming of human, financial and scientific resources of the Unit.

As collaborator of Carlo Rubbia and his assistant for programmatic and strategic activities and afterwards in the position of Director General of ENEA, I gained the most exciting experiences and the ability in stimulating new ideas and recognizing what can be implemented taking into account available resources and time constraints and how to moderate potential conflicts within the organization.

As President of the Company NUCLECO, where I had the power for creating new organization, I have got a large experience in public company organization.

In the Technical Commission for Nuclear Safety and health protection, with the duty to advice the national authority, I have gained experience in the formal evaluation of projects, but especially how to mediate the territorial demands, giving always priority to the needs of safety and environmental protection.

Technical skills and competences

Starting on October 1984, as Officer of the Corp of Engineers of the Italian Armed Forces and then as researcher in the Italian Agency for energy, new technology and environment (ENEA), I have built a career on the complex infrastructure management, financial and human resources administration, production of know how in the field energy and nuclear science and technology,

their practical application and impact on society and environment.

Over many years of my career, I have participated at several initiatives of European Commission, IAEA, EURATOM and other International Organisations, at international research and development programmes, working groups, advisory committees. In this frame I have got the best opportunity to acquire knowledge of community policies, participating also in making of the community policies.

I gained knowledge on the management of primary energy resources, on the relevant EU policies and decision-making process for a competitive economy, the sustainable development and the protection of citizens and consumers.

As head of units in nuclear field I had also the opportunity to carry out research and studies to improve the understanding of potential health risks posed by chemicals, radioactive nuclides, their release into atmosphere and ground water and their effects on the environment and population. In this frame, I also got the formal licences, first for the Technical Supervision of the activities carried out in the EUREX reprocessing plant and then for the Technical Direction of nuclear plants.

I have then acquire competences in nuclear material and radioactive waste management (characterisation, treatment, conditioning and disposal), including spent fuel, reprocessing of spent fuel, safety and security procedures, radioprotection, nuclear plant management (EUREX Plant), decommissioning and unconditioned releases of nuclear sites.

As Research Director and coordinator of research groups I also increased my competencies and gained experiences in the field of new nuclear concept and applications, improving my problem solving capacity.

Digital competence

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Independent user	Independent user	Independent user	Independent user	Independent user

- good command of office suite (word processor, spread sheet, presentation software)

Driving licence

A and B (car and motorbike)

ANNEXES

Annex 1: Other Experiences

Annex 1: Main Publications

Annex 1: Other Experiences

- 2013 Member of the Governing Board of the Sustainable Nuclear Energy Technology Platform (SNETP)
Paris, 12 February 2013
- 2011-2013 Italian delegate at the IAEA *"Technical Meeting on the International Project on Demonstrating the Safety of Geological Disposal (GEOSAF)"*.
Vienna, 16-20 May 2011 and 19-23 March 2012
- 2011 Scientific advisor to the Italian delegation on *"expert side event on Fissile Material Cut-off Treaty" (FMCT)*
Geneva, May 30 - June 1, 2011
- 2011 Italian delegate at the IAEA *"Technical Meeting on MOX Fuel and MOX Spent Fuel Management"*
Vienna, 21-23 February 2011
- 2007 Italian Representative of Nuclear Operators within Members States of European Commission on *"Implementing Euratom Treaty Safeguards"*.
Luxembourg, 23-24 October 2007
- 2007 OECD-NEA: Member of Expert Group on *"Disposal of Radioactive Waste in Perspective"*
Meetings: Issy-les-Moulineaux (France), 3-4 May 2007
Issy-les-Moulineaux (France), 6-7 November 2007
- 2007 Italian delegate at the IAEA 51st General Conference.
Vienna, 17-21 September 2007
- 2007 Italian delegate at the 7th Euratom Framework Programme (FP7) for Nuclear Research and Training Activities (Work Programme 2007)
Information Meeting on Radioactive Waste Management: Geological disposition, Infrastructures, Human resources, mobility and training.
Brussels, 7-8 February 2007
- 2006 Italian delegate at the IAEA *"Technical Meeting on Waste Classification Safety Guide"*.
Vienna, 26 November-1 December 2006.
- 2006 Italian delegate at the IAEA *"Technical Meeting on Methods for Monitoring for compliance of sites with remediation criteria"*.
Vienna, 10-15 September 2006.
- 2006 Italian delegate at the IAEA for the general assembly on the *"Joint Convention on radioactive waste and spent fuel"*.
Vienna, 14-25 May 2006.
- 2006 Italian delegate at the IAEA *"Joint Technical Workshop on the objectives, scope and general attributes of a potential technical safety standard for nuclear power sources in outer space"*.
Vienna, 19-21 February 2006.
- 2004/2005 Member of European Working Group on *Nuclear Power Sources for Space* (under the mandate of the European Commission and with support of ESA and the Member States to "draw up a European space policy" and to "coordinate the efforts needed for the exploration and exploitation of space" - EU Constitution Art III-155).
- 2004-2006 Lecturer at the NATO SCHOOL courses on *"Environmental Protection for Military Forces"*.
- Since 2004 Member of the Steering Committee of ESARDA (*European Safeguards Research and Development Association*).
- 2002 Member of International Steering Committee of the Seminar on Radioactive Waste Products.
Wurzburg (D), 22-26 September 2002.
- Since 2000 Member of the Advisory Group of Independent Experts to assist the JRC sites (Ispra, Geel and Karlsruhe) with the execution of the Action Plan on Historical Liabilities (Board of Governors nomination).
- Since 1997 "Contact person" of the Security Department of "Ministry of Interior" against the illicit trafficking of nuclear and radioactive materials.
- Since 1994 Member of the Steering Committee of the European Network of Testing Facilities for Quality Checking of Radioactive Waste Packages (EN-TRAP).
- Since 1994 Member of the Italian Regulatory Organisation UNI-CEN and related working groups on the analytical procedures standardisation in the nuclear field.
- Since 1992 Member of a working group of the International Standard Organisation (ISO) on the analytical procedures standardisation in the nuclear field.
- 1995-2000 Convenor of the EN-TRAP Working Group B on Chemical and Radiochemical destructive analyses.
- 1994 IAEA: Advisory group for characterisation of radioactive waste forms and packages.
- 1994 IAEA: Meetings of Expert on Illicit Trafficking in Nuclear materials.
- 1991 IAEA: Advisory Technical Committee for quality control requirements and methods for high level waste packages acceptability.

Annex 2: Main Publications

1. F. TROIANI; R. LAZZARONI; S. BERTOZZI; P. POCAI, P. SALVADORI.
FACTOR AFFECTING THE REGIOSELECTIVITY IN THE RHODIUM-CATALYZE HYDROFORMILATION OF VINYL ETHERS.
J. ORGANOMET. CHEM.; (85) P-371-6; VOL. 295
2. F. TROIANI; L. PIETRELLI; G. GROSSI.
SELECTIVE SEPARATION OF ACTINIDES AND LONG LIVED FISSION PRODUCTS FROM AGED LIQUID WASTES PRODUCED BY THE EUREX PLANT AT SALUGGIA.
PROCEEDINGS OF AN INTERNATIONAL SYMPOSIUM ON MANAGEMENT OF LOW AND INTERMEDIATE LEVEL RADIOACTIVE WASTES, STOCKHOLM 16-20 MAY 1988
3. F. TROIANI *et al.*
DETERMINAZIONE DELLA MASSA DI PLUTONIO IN CAMPIONI LIQUIDI MEDIANTE INTERROGAZIONE NEUTRONICA PASSIVA
ATTI DEL VII CONVEGNO NAZIONALE SULLE ATTIVITA' DI RICERCA NEI SETTORI DELLA RADIOCHIMICA E DELLA CHIMICA NUCLEARE, DELLE RADIAZIONI E DEI RADIONUCLIDI.
PAVIA 3-5 MAGGIO 1989
4. F. TROIANI *et al.*
SPETTROFOTOMETRO DI ASSORBIMENTO ATOMICO REMOTIZZATO PER LA DETERMINAZIONE DI METALLI IN TRACCE SU MATRICI AD ELEVATA TOSSICITA'
ATTI DEL VII CONVEGNO NAZIONALE SULLE ATTIVITA' DI RICERCA NEI SETTORI DELLA RADIOCHIMICA E DELLA CHIMICA NUCLEARE, DELLE RADIAZIONI E DEI RADIONUCLIDI.
PAVIA 3-5 MAGGIO 1989
5. F. TROIANI; M. APARO; P. ZEPPA; V. PAGLIAI; A. PROSDOCIMI.
DETERMINATION OF PLUTONIUM MASS BY PASSIVE NEUTRON ASSAY IN THE INPUT AND OUTPUT SAMPLES OF A MOX PILOT CONVERSION PLANT.
11TH ANNUAL SYMPOSIUM ON SAFEGARDS AND NUCLEAR MATERIAL MANAGEMENT. LUXEMBOURG, 30MAY-1 JUNE 1989.
PROCEEDINGS, p. 443-8
6. F. TROIANI *et al.*
L'IMPIANTO PILOTA SERSE – DESCRIZIONE E RISULTATI DELLE PROVE SPERIMENTALI DEL TRATTAMENTO CHIMICO DI UN RIFIUTO LIQUIDO SIMULATO
ENEA-RT/COMB/89/20
7. F. TROIANI *et al.*
PROVE DI DECLASSIFICAZIONE DEL RIFIUTO LIQUIDO MTR CONTENUTO NEL SERBATOIO F-710/D DELL'IMPIANTO EUREX
ENEA-RT/COMB/89/16
8. F. TROIANI *et al.*
TRATTAMENTO DEI RIFIUTI TOSSICI NOCIVI ORGANICI MEDIANTE IL PROCESSO DI OSSIDAZIONE AD UMIDO CON ACQUA OSSIGENATA A BASSA TEMPERATURA
ENEA-RT/COMB/89/18
9. F. TROIANI; L. PIETRELLI; G. GROSSI.
SELECTIVE SEPARATION OF ACTINIDES AND LONG LIVED FISSION PRODUCTS FROM AGED LIQUID WASTES PRODUCED BY THE EUREX PLANT AT SALUGGIA.
ENEA-RT/COMB/89/8
10. F. TROIANI; L. PIETRELLI.
CHEMICAL TREATMENT OF HIGH-LEVEL RADIOACTIVE LIQUID WASTE PRODUCED BY MTR REPROCESSING PLANT.
WASTE MANAGE.; (90) p. 103-9; VOL 10
11. F. TROIANI; L. PIETRELLI; A. SALLUZZO.
SORPTION OF EUROPIUM AND ACTINIDES BY MEANS OF OCTYL(PHENYL)-N-DIISOBUTYL CARBAMOYL METHYL PHOSPHINE OXIDE (CMPO) LOADED ON SILICA.
J. RADIOANAL. NUCL. CHEM.; (90) p. 107-15; VOL 141
12. F. TROIANI *et al.*
IL TRATTAMENTO CHIMICO DEI RIFIUTI RADIOATTIVI AD ALTA ATTIVITA' DELL'ENEA.
ENERG. NUCL. (ROME); (90) VOL 2

13. F. TROIANI; C. CALLE; M. GILI; A. LUCE; A. MARROCCELLI; L. PIETRELLI.
CHEMICAL TREATMENT OF HIGH-LEVEL RADIOACTIVE WASTES OF ENEA.
ENEA ENERG. NUCL. (ROME); (90) p. 69-76; VOL 7
14. F. TROIANI; G. GROSSI; C. CALLE; M. GILI; A. LUCE; A. MARROCCELLI; L. PIETRELLI.
SELECTIVE SEPARATION OF ACTINIDES AND LONG LIVED FISSION PRODUCTS FROM 1AW MTR LIQUID WASTE: PILOT PLANT TESTS
REPORT.
E.C. CONTRACT FI1W-0011-IS, PART TWO, APRIL 1990
15. F. TROIANI; L. PIETRELLI; A. SALLUZZO.
ACTINIDES REMOVAL BY MEANS OF OCTYL(PHENYL)-N-DIISOBUTYLCARBAMOYLMETHYL PHOSPHINE OXIDE (CMPO) SORBED ON
SILICA.
NEW SEPARATION CHEMISTRY TECHNIQUES FOR RADIOACTIVE WASTE AND OTHER SPECIFIC APPLICATIONS, p. 87-94,
ELSEVIER APPLIED SCIENCE, 1991, LONDON
16. F. TROIANI; L. PIETRELLI.
CAESIUM DECONTAMINATION FROM MTR WASTE SOLUTION.
NEW SEPARATION CHEMISTRY TECHNIQUES FOR RADIOACTIVE WASTE AND OTHER SPECIFIC APPLICATIONS, p. 266-271;
ELSEVIER APPLIED SCIENCE, 1991, LONDON
17. F. TROIANI; A. LUCE; S. MOMO; L. DI PACE; P. RISOLUTI.
TREATMENT AND CONDITIONING OF THE HLLW STORED AT ENEA'S REPROCESSING PILOT PLANT.
PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM WASTE MANAGEMENT 92 - TUCSON (ARIZONA, USA)
18. F. TROIANI et al.
QUALITY ASSURANCE REQUIREMENTS AND METHODS FOR HIGH LEVEL WASTE PACKAGES ACCEPTABILITY.
IAEA-TECDOC-680
19. F. TROIANI; J.E. STEWART; H.O. MENLOVE; R.R. FERRAM; M. APARO; P. ZEPPA.
INTRUMENTATION AND PROCEDURES FOR MOISTURE CORRECTIONS TO PASSIVE NEUTRON COINCIDENCE COUNTING ASSAYS OF
BULK PUO₂ AND MOX POWDERS.
LOS ALAMOS N.L. , LA 12546-MS (ISPO-351); UC -700, MAY 1993
20. F. TROIANI; V. CALI; F. BONOTTO; V. PAGLIAI; J. LI-YUN.
ANALYSIS OF HLLW AND ITS SIMULATED SOLUTION BY GRAPHITE FURNACE ATOMIC ABSORPTION SPECTROMETRY.
ENEA-RT/ERG-NUC/93/10
21. F. TROIANI; L. AMATO; V. CALI.
A REMOTIZED ION-CHROMATOGRAPHY FOR HAZARDOUS WASTE ANALYSIS.
PROCEEDINGS OF THE INTERNATIONAL ION-CHROMATOGRAPHY SYMPOSIUM.
TORINO, SEPTEMBER 94
22. F. TROIANI; A. LUCE.
TREATMENT OF RADIOACTIVE SOLVENT WASTE BY CATALYTIC WET-OXIDATION.
PROCEEDINGS OF THE VII NUCLEAR AND HAZARDOUS WASTE MANAGEMENT INTERNATIONAL TOPICAL MEETING.
SPECTRUM 94 - ATLANTA (GEORGIA, USA)
23. F. TROIANI; L. AMATO; R. NANNICINI; A. FACCHINI; A. MOCCIA.
TREATMENT OF A PROCESS FLOW-SHEET FOR LONG LIVED RADIONUCLIDE PARTITIONING.
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24. F. TROIANI et al.
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NETWORK REPORT NUCLEAR SCIENCE AND TECHNOLOGY, EUR 19123 EN
25. F. TROIANI; P. VAN ISEGHEM; G. BRUNEL; C. LIERSE; A. MORALES; R. ODOJ; M. HUGON.
DEVELOPMENTS SINCE THE INAUGURATION OF THE EUROPEAN NETWORK FOR QA/QC.
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RADIOACTIVE WASTE, LUXEMBOURG, 25-29 MARCH 1996

26. F. TROIANI; A. BARI; A. ROSSO; M.R. MINCIARDI; R. PIERVITTORI.
ANALYSIS OF HEAVY METALS IN ATMOSPHERIC PARTICULATES IN RELATION TO THEIR BIOACCUMULATION IN EXPLANTED *PSEUDEVERNIA FURFURACEA* THALLI.
ENVIRONMENTAL MONITORING AND ASSESSMENT 69: 205-220, 2001
27. F. TROIANI; M.A. DE SIMONE.
EVALUATION AND STANDARDISATION OF FAST ANALYTICAL TECHNIQUES FOR DESTRUCTIVE RADWASTE CONTROL.
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29. F. TROIANI; P. BIENVENU; C. DALE; J.J. DELEPINE; J. FACHINGER; C. GALLEGO; F. KLEIN; D. RISHEHRI; M. RODRIGUEZ; F. VANDERLINDEN; P.I. VOORS; J. WELBERGEN.
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30. F. TROIANI *et al.*
EUROPEAN NETWORK OF TESTING FACILITIES FOR THE QUALITY CHECKING OF RADIOACTIVE WASTE PACKAGES – MULTIANNUAL REPORT 1997-2000. NETWORK REPORT NUCLEAR SCIENCE AND TECHNOLOGY, EUR 19953 EN
31. C. RUBBIA; F. TROIANI *et al.*
TRIGA ACCELERATOR DRIVEN EXPERIMENT - TRADE FINAL FEASIBILITY REPORT.
MARCH 2002
32. G. BRUNETTI; N. CHERUBINI; A. DODARO; F. TROIANI.
SRWGA: A COMPREHENSIVE SYSTEM FOR GAMMA CHARACTERISATION OF RADIOACTIVE WASTE PACKAGES.
SEMINAR ON RADIOACTIVE WASTE PRODUCTS, WURZBURG (D), 22-26 SEPTEMBER 2002
33. C. RUBBIA, M. CARTA, N. BURGIO, C. CIAVOLA, A. D'ANGELO, A. DODARO, A. FESTINESI, S. MONTI, A. SANTAGATA AND F. TROIANI (ENEA); M. SALVATOIRES AND M. DELPECH (CEA); Y. KADI, S. BUONO, A. FERRARI, A. HERRERA MARTÍNEZ AND L. ZANINI (CERN); G. IMEL (ANL).
PRELIMINARY NEUTRONIC ANALYSIS OF THE TRIGA-ADS DEMONSTRATION FACILITY.
PHYSOR 2002, SEOUL, KOREA, OCTOBER 7-10, 2002
34. R. CARPENTIERO, A. LUCE, F. TROIANI
CEMENTATION FEASIBILITY OF A URANIUM-THORIUM BASED SOLUTION BY PHYSICAL AND MECHANICAL CHARACTERIZATION.
INTERNATIONAL NUCLEAR CONFERENCE 2002, KUALA LUMPUR, 14-18 OCTOBER 2002
35. M. GILI, P. RISOLUTI, F. TROIANI.
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WASTE MANAGEMENT 2003, TUCSON (AZ, USA) FEBRUARY 23 – 27, 2003
36. N. CHERUBINI, A. DODARO, R. REMETTI, F. TROIANI, G. K. VOYKOV.
DETERMINATION OF ²⁴⁰PUEFF WITHIN WASTE DRUMS: IMPROVEMENT OF NEUTRON DETECTION EFFICIENCY DETERMINATION BY RECONSTRUCTION OF ACTIVITY SPATIAL DISTRIBUTION.
ESARDA PROCEEDINGS 2003.
37. V. CAMPETI, N. CHERUBINI, A. DODARO, F. V. FRAZZOLI, R. REMETTI, L. SILVI, F. TROIANI;
WASTE DRUMS CHARACTERISATION BY GAMMA TOMOGRAPHIC ASSAY WITH THE SRWGA SYSTEM.
ESARDA PROCEEDINGS 2003.
38. F. TROIANI, N. CHERUBINI, A. DODARO, N. SPARACINO.
CARATTERIZZAZIONE E CLASSIFICAZIONE DEI RIFIUTI RADIOATTIVI.
COMUNICAZIONE ORALE AL XXI CONGRESSO NAZIONALE DELLA SOCIETÀ CHIMICA ITALIANA, TORINO GIUGNO 2003.
39. N. CHERUBINI, A. DODARO, F. V. FRAZZOLI, R. REMETTI, F. TROIANI.
L/ILW WASTE CHARACTERISATION BY THE ENEA MULTI-TECHNIQUE GAMMA SYSTEM SRWGA. PROCEEDINGS OF ICEM '03: THE 9TH INTERNATIONAL CONFERENCE ON RADIOACTIVE WASTE MANAGEMENT AND ENVIRONMENTAL REMEDIATION SEPT. 21 – 25, 2003
40. C. RUBBIA, M. CARTA, N. BURGIO, C. CIAVOLA, A. D'ANGELO, A. DODARO, A. FESTINESI, S. MONTI, A. SANTAGATA AND F. TROIANI (ENEA) - M. SALVATOIRES AND M. DELPECH (CEA); Y. KADI, S. BUONO, A. FERRARI, A. HERRERA MARTÍNEZ AND L. ZANINI (CERN); G.

IMEL (ANL).
NEUTRONIC ANALYSIS OF THE TRADE DEMONSTRATION FACILITY.
SPECIAL ISSUE OF NUCLEAR SCIENCE AND ENGINEERING 2003

41. C. RUBBIA; F. TROIANI *et al.*
STATUS OF THE TRADE EXPERIMENT
PROCEEDINGS OF THE FOURTH INTERNATIONAL WORKSHOP ON UTILIZATION AND RELIABILITY OF HIGH POWER PROTON ACCELERATORS. INTERNATIONAL NUCLEAR TRAINING AND EDUCATION CENTER; MAY 16-19, 2004, DAEJEON, KOREA
42. F. TROIANI *et al.*
STATUS OF THE CONCEPTUAL DESIGN OF ACCELERATOR AND BEAM TRANSPORT LINE FOR TRADE
PROCEEDINGS OF THE FOURTH INTERNATIONAL WORKSHOP ON UTILIZATION AND RELIABILITY OF HIGH POWER PROTON ACCELERATORS.
INTERNATIONAL NUCLEAR TRAINING AND EDUCATION CENTER; MAY 16-19, 2004, DAEJEON, KOREA
43. F. TROIANI *et al.*
REPORT TO EUROPEAN COMMISSION ON NUCLEAR POWER SOURCES FOR SPACE.
BRUSSELS, 30 MARCH 2005.
44. G. BENAMATI, L. CINOTTI, C. FOLETTI, F. TROIANI.
SISTEMI NUCLEARI CRITICI BASATI SULLA REFRIGERAZIONE A LEGHE DI PIOMBO: UNA SFIDA TECNOLOGICA.
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