

## CURRICULUM VITAE

1. **Family name:** Buccafurni
2. **First names:** Aldo
3. **Date of birth:** February 19<sup>th</sup>, 1951
4. **Nationality:** Italian
5. **Education:**

Institution [ Date from - Date to ]	Degree(s) or Diploma(s) obtained:
University of Rome 1970 - 1979	University Degree in Physics

6. **Language skills:** Indicate competence on a scale of 1 to 5 (1 - excellent; 5 - basic)

Language	Reading	Speaking	Writing
Italian	Mother tongue		
English	1	2	1
French	2	4	4

7. **Membership of professional bodies:**
8. **Covered position:** Retired. Previous: Head of Nuclear Physics Evaluations Unit and Responsible for the licensing of Research Reactors at ISPRA (Italian Nuclear Regulatory Authority)
9. **Years within the firm:** 35 years in the Italian Nuclear Safety Authority
10. **Key qualifications** Responsible for licensing of Research Reactor; Core design evaluation and assessment; "National Coordinator" Incident Reporting System for Research Reactors at the IAEA.
11. **Specific experience:**

*INSC Project MC.03/10*

Training Course "Safety evaluation of SAR and oversight for RR' JSI - Ljubljana – September 2 – 6, 2013

*EC INSC Project A3.01/13*

"Enhancement of ANRA and NRSC capabilities for safety review and assessment of radioactive waste management facilities and activities"

Training Session, Helsinki October 24 - 27, 2016

*EC INSC Project MC3.01/13*

Training Course on "Requirements and safety evaluation of Research Reactors"

Ljubljana, December 05 – 09, 2016

*INSC Project MC.03/10*

Tutoring Module "Tutoring in the area of regulatory licensing and oversight of decommissioning activities of NPP or other NF" June 3 – July 26, 2013 c/o ISPRA - Rome

*INSC Project MC3.01/13*

Tutoring Module on "Tutoring in the area of regulatory licensing and oversight of decommissioning activities of NPP or other NF" June 22 – August 14, 2015 c/o ISPRA - Rome

*INSC Project A3.01/13*

Subtask 2.2.

On the Job Training "RW processing and storage facilities including the transfer of use of analytical tools" February 6st – March 17th, 2017 ISPRA – Rome (Italy)

## 12. Professional experience

Date from - to	Location	Company	Position	Description
2006- 2017t	Rome/ Stage abroad*	ISPRA (ex-APAT, first ENEA-DISP)- Italian Nuclear Regulatory Authority  reference person Head of Nuclear Division Mr. L. Matteocci  (phone: +39 0650072009)	Head, Nuclear Physics Evaluation Unit	Safety evaluations related to the behavior of fissile materials and nuclear fuels, to shielding and radiological characterization of the facilities. Research reactors licensing management. Contribution to the preparation of the National Report to answer the EU Directives and Conventions on nuclear safety.
1997-05			Responsible for research reactors	Coordination and management of licensing activities for research reactors
1994-96			Technical leader	Development of the air quality management system and preparation of the National Plan for the Protection of Air Quality. Preparation of analytical tools for the analysis of the current state and forecasts of air pollution.
1993-94			EU Project Task leader	Participation to some EU Tacis nuclear safety assistance projects for aspects related to :safety assessment of NPP (Rovno), core design and fuel management for VVER 1000/320 and VVER 440/213
1991-92*			Program Liaison Engineer/ Traineeship	Assignment c/o General Electric in California in the frame of the SBWR (Simplified Boiling Water Reactor) Project as Program Liaison Engineer
1986-87*			Traineeship	Assignment c/o DoE laboratories in Idaho, USA, on NRC severe accident research programme
1982-94			Responsible for NPP core design evaluation	To assure the compliance of the core design with the safety design criteria and to control the compliance with approved project
1979-80	Trento	Public High School	Teacher	Teaching mathematics and physics

## 13. Other relevant information (eg, Publications)

### Publications:

more than 25 papers in scientific reviews or congress proceedings mainly on accident analysis and actinide burning;  
several technical report related to the technical aspects of the activities

## Publications:

1. SCDAP Comparative Analysis of Severe Accident Fuel Bundle Behavior for Zircaloy and Stainless Steel Cladding, SFD Meeting, Washington, October 1986
2. Performance of Standard Calculation Tools in the Analysis of Chernobyl Accident, IAEA-SM-296/53P, Sorrento, Italy, March 1988
3. Positive Scram Versus Void Coefficient, The 1988 International Reactor Physics Conference, Jackson Hole, September 1988
4. BUCCAFURNI A., CARUSO G., COLAGROSSI M., DI CAPUA G.P.C., NAVIGLIO A., Counter-current flow modeling and hydrogen generation influence on a PWR severe accident: the TMI-2 accident", 7° EUROTHERM Seminar on Thermal non-equilibrium in two-phase flow - Roma - Marzo 1989, pp.301-316.
5. Sensitivity Analysis on TMI-2 Accident, 44th National Congress of Italian Thermotechnical Association, Cosenza, Italy, September 1989.
6. Analisi neutronica statica dell'incidente di Chernobyl, RT/DISP/89/5 (1989)
7. Safety Margins in the Italian Computerized Criticality Guide, International Topical Meeting on Safety Margins in Criticality Safety, San Francisco, November 1989
8. SCDAP/RELAP5/MOD2 Code Manual, Volume 4: MATPRO-A Library of Materials Properties for LWR Accident Analysis, NUREG/CR-5273, (1990).
9. Time-Independent Neutronic Analysis of the Chernobyl Accident, Nucl. Sci. Eng., 108 126-149 (1991)
10. Actinide burning Situations and Perspectives, Energia Nucleare, anno 8, 2 65-100 (1991) (in italian)
11. Feasibility Analysis of Minor Actinide Burning, Trans. Am. Nucl. Soc., 64 128 (1991)
12. Minor Actinide Burning in Thermal Systems, Proceedings of the 1992 Topical Meeting on Advances in Reactor Physics, Charleston, March 1992
13. Feasibility Analysis of Minor Actinide Burning, Proceedings of the Specialists' Meeting on Accelerator-Based Transmutation, PSI, Villigen, Switzerland, pp. 320-363 March 24-26 (1992)
14. Analysis of minor actinides burning, Ingegneria Nucleare e Tecnologie Energetiche, 3-4 3-17 (1992) (in italian)
15. ORIGEN2 Simulation of the Los Alamos Accelerator-Driven Transmutation System, Trans. Am. Nucl. Soc., 66 527-528 November (1992)
16. Minor Actinide Burning: a Comparison between four Methods, Energia Nucleare, anno 9, 1-2 20-46 (1992)
17. Analysis of the Minor Actinide Burning Problems, International Conference on Safe Management and Disposal of Nuclear Waste, Safewaste 93, (1993)
18. One-Dimensional Analysis of the Accelerator Transmutation of Waste Systems, Trans. Am. Nucl. Soc., 70 368-369 June (1994)
19. Study of the Burning Capability of the Los Alamos ATW System, International Conference on Accelerator-Driven Transmutation Technologies and Applications, Las Vegas, USA, July 25-29 (1994)
20. Hybrid Systems - State of the Art and Prospects, Energia Nucleare, anno 11, 3 34-70 September-December (1994)
21. Safety Evaluation of VVER 1000/320 Reactors in Rovno NPP Units 1,2 and 3 (capitolo 3 Core Design and Fuel Management), RISKAUDIT Report n° 7, December (1994)
22. Some Ideas about Hybrid System Concepts, Third International Information Exchange Meeting on Actinide and Fission Product Partitioning and Transmutation, Cadarache, France, December 12-14 (1994)
23. Hybrid System Concepts, Proceeding of GLOBAL 95 International Conference on Evaluating of Emerging Nuclear Fuel Cycle Systems, Palais des Congress, Versailles, France, pp 1459-1463. September 11-14 (1995).
24. Tridimensional Analysis of the Los Alamos Accelerator-Driven Transmutation System, (Third Part), Energia Nucleare, anno 12, 3 41-59 September-December (1995)
25. A First Evaluation of FEA, Fifth International Information Exchange Meeting on Actinide and Fission Product Partitioning and Transmutation, OECD NEA, Mol, Belgium, November 25-27 (1998)