

August 2005

**CURRICULUM VITAE
(Short version)**

**Thorkild Hvitved-Jacobsen
Professor of Environmental Engineering**

Professor of Environmental Engineering, Head of Sewer Processes & Network Group (SPN Group)

Section of Environmental Engineering
Department of Life Sciences
Aalborg University
Sohngaardsholmsvej 57
9000 Aalborg
Denmark

telephone, switchboard: +45 96 358080
telephone, direct: +45 96 358489
telephone, secretary: +45 96 358491
telefax: +45 96 350558
e-mail: thj@bio.aau.dk
homepages: www.sewer.dk or www.bio.aau.dk

Research within the Sewer Processes & Network Group (SPN Group)

Wastewater process engineering of sewers and treatment plants; urban and highway runoff pollution; receiving water impacts.

Key qualifications related to environmental process engineering:

- in-sewer physical, chemical and microbial transformations of wastewater (integrated process engineering of sewer networks and treatment plants; hydrogen sulfide and sewer corrosion; odors)
- sewer process design and management
- combined sewer overflows: pollutant loads and receiving water impacts
- stormwater and highway runoff pollution: management, treatment and receiving water impacts

Main financial support received from: The Danish Technical Research Council (STVF); The National Environmental Protection Agency (Danish EPA); EU 5th Framework Programme: CARE-S (Computer Aided Rehabilitation of Sewer networks); Aalborg Municipality; private institutions and firms: Emschergenossenschaft (Germany), Kubota Corporation (Japan), Interconsult (Norway) and CP Kelco (Denmark).

Planning and administrative tasks and experience in education and research

A great number of planning and administrative tasks at Aalborg University: University level; Faculty of Engineering and Science; Departmental level (Environmental Engineering and Chemical Engineering).

Conducted more than 30 major externally funded research projects.

Taught several environmental engineering courses and supervised more than 100 MSc students' thesis within my research area.

Publications

More than 240 scientific publications; primarily in international journals, proceedings from international conferences and books, cf. publication list.

Books published in Denmark, UK, USA and Japan.

A great number of reports and statements as consultant for Danish and foreign clients.

International experience and initiatives

International Water Association (IWA, former IAWQ): Organizer of conferences (International Conferences on Sewer Processes and Networks); editor for conference proceedings (Water Science & Technology issues); co-editor for a Scientific & Technical Report on Sewer Solids; reviewer for Water Research and Water Science & Technology.

Water Environment Federation (WEF): Reviewer for Water Environment Research.

Organizer and program committee chairman for several international conferences and workshops (particularly IWA sponsored activities).

Invited speaker at several conferences and seminars.

Organization of and lecturing at several international courses and seminars.

Official opponent and committee member for several Ph.D. dissertations at universities in Europe and the USA.

Chairman for the Sewer Systems & Processes Working Group (SS&PWG), IAHR/IWA Joint Committee on Urban Drainage, (1999-2002) and Vice-Chairman (1996-99).

Project and program reviewer for: Norwegian Scientific and Technical Research Council, (1994-); Academy of Finland, (2005-); Singapore Science & Engineering Research Council, (2005-).

Visiting Associate Professor, Department of Civil Engineering and Environmental Sciences, University of Central Florida, USA, (1982-83).

Coordinator for EU-student exchange (ERASMUS, TEMPUS, COMETT, SOCRATES).

Consultant for institutions and firms in Europe (Germany, Norway, Portugal, Poland and Slovak Republic) and in the USA.

Research and other types of cooperation (e.g. Ph.D. student exchange and course organization) with several universities and institutions in Western European countries, Eastern Europe (Russia, Slovak Republic and Lithuania) and Malaysia.

Main international initiatives related to sewer processes:

- The series of IWA sponsored International Conferences on Sewer Processes & Networks (the 1st and 2nd conference held at Aalborg University, Denmark).
- Foundation of the IAHR/IWA Sewer Systems & Processes Working Group.
- Author of the book "Sewer Processes – microbial and chemical process engineering of sewer networks". Published in the USA and Japan (CRC Press, Boca Raton, FL, USA. and Gihodo Shuppan Co., Ltd., Japan).
- Consultant worldwide for sewer process design and management projects.

Specific national activities

Consultant for several municipalities and regional authorities, North Jutland Science Park (Nordjyllands Videnpark) and the Danish Environmental Protection Agency (Miljøstyrelsen).

Appointed expert witness in environmental cases at the Danish High Court (Landsretten).

Appointed external examiner at the Technical University of Denmark, Environment and Resources.

Appointed member of the Scientific Advisory Board, the Danish Research Agency (Statens Teknisk-Videnskabelige Forskningsråd, STVF), Ministry of Science, Technology and Innovation.

Appointed by the Minister of the Environment as member of the Committee of Appeal in Environmental Matters (Miljøklagenævnet); field of expertise: wastewater and wastewater treatment.

The Danish Water & Wastewater Society (Dansk Vand- og Spildevandsforening, DANVA); Member of the Water and Wastewater Committee.

Honors

Environmental Protection Award, University of Central Florida, USA.

Ph.D. students

1. Per Halkjaer Nielsen: Biofilm kinetics of hydrogen sulfide formation in pressure mains (1984-1987)
2. Niels Aagaard Jensen: Air-water oxygen transfer in gravity sewers (1987-1990)
3. Kamma Raunkjaer: Characterization and transformation of wastewater organic matter in sewer systems (1989-1993)
4. Hanne Loekkegaard Bjerre: Transformation of wastewater in an open sewer: the Emscher river, Germany (1993-1996)
5. Jes Vollertsen: Solids in combined sewers – characterization and transformation (1995-1998)
6. Naoya Tanaka: Aerobic/anaerobic process transition and interactions in sewers (1995-1998)
7. Ana Estela Barbosa: Highway runoff pollution and design of infiltration ponds for pollutant retention in semi-arid climates (1995-1999)
8. Suhaimi Bin Abdul Talib: Transformation of organic matter under anoxic conditions (1999-2002)
9. Chaturong Yongsiri: Emission and fate of hydrogen sulfide in sewer networks (2000-2003)
10. Asbjoern Haaning Nielsen: Oxidation and precipitation of sulfide in sewer networks (2001-2004)
11. Weixiao Yang: Nitrogen and carbon transformations under anoxic conditions in sewers (2001-2005)
12. Heidi Ina Madsen: Air-water mass transfer in environmental systems – sewers and wet detention ponds receiving stormwater runoff (2003-)
13. Henriette Stokbro Jensen: Biotic and abiotic corrosion of concrete sewer networks (2005-)