DR NICHOLAS PAUL CROUCH

BSc (Hons), M.A., D.Phil, C. Chem, MRSC, MemASABE

Consultant Scientist

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Nicholas Crouch has a D.Phil. in Chemistry, obtained at St. John's College, University of Oxford, and was formerly a Fellow of Oriel College and is a member of Congregation of the University of Oxford. During his employment at Oxford he was involved as an expert witness in several multi-billion dollar patent lawsuits in the USA. He joined Brookes Bell in 1999.

His main area of expertise lies in the field of chemicals as well as in agricultural commodities. He has provided extensive advice to members in the marine shipping community on the safe carriage of chemical and agricultural commodities. He has been extensively involved with liquefaction issues concerning many Group A cargoes but especially iron ore fines, nickel laterites, bauxite and coal and has conducted many major investigations overseas. Additionally, he has conducted major investigations overseas into incidences of cargo damage arising from transportation and from inherent vice. He has conducted documentary investigations in connection with legal work. From his academic and research career he has a comprehensive understanding and 'hands-on' experience of modern analytical techniques and procedures.

His interests are concerned with the carriage of chemicals, agricultural products such as grain, seed cake, vegetable oils, fruit and vegetables, fertilisers, minerals, metal ores and products derived from them. He also has a keen interest in fire investigations relating to chemicals as well as various other cargoes.

Dr. Crouch has acted in numerous arbitrations and mediations concerning marine cargo claims both in the UK and abroad, such as the USA, Hong Kong and Turkey.

Professional Associations

Member of the Royal Society of Chemistry (CChem MRSC).

Member of American Society of Agricultural Engineers (Mem.ASAE).

Academic Qualifications

B.Sc. (Hons) in Chemistry, King's College, University of London.

M.A. University of Oxford.

D.Phil. in Organic Chemistry, St. John's College, University of Oxford.

Previous Employment History

Departmental Research Assistant at Dyson Perrins Laboratory, Oxford, with Prof. Sir Jack Baldwin.

Junior Research Fellowship at Wolfson College, Oxford.

Lecturer in Organic Chemistry at Oriel College and Lady Margaret Hall, Oxford.

Tutorial Fellow at Oriel College, Oxford.

Undergraduate and Post-graduate teaching, University of Oxford.

Including;

Royal Society of Chemistry JWT Jones Travelling Fellowship and sabbatical leave at the Institute de Rechérche en Biologie Vegétale, Université de Montréal, Canada.

Expert witness for Glaxo-Wellcome "Zantac", Bristol Myers Squib "Cephadroxil", and Tanabe "Diltiazem" patent disputes and other similar cases.

Scientific and Consultancy Experience

He has appeared as an expert witness in various pharmaceutical patent disputes in the USA and Germany. This has involved arbitration testimony, both as an expert and a witness of fact at the US International Trade Centre and various depositions and appearances in US Federal Courts.

Subject Areas:

- Chemicals, including fine chemicals, acids and bases, fats and oils etc.
- Chemical & cargo fire investigation in seedcakes, coal, maize, wheat bran, malt barley etc.
- Coal cargoes, including self-heating and fires.
- Infestation problems.
- Fertilisers, including urea, NPK, ammonium nitrate, diammonium phosphate, monoammonium phosphate potash, etc.
- Minerals, including Gabbro aggregates, nickel laterites.
- Cement and cement clinker.
- Metal ores and metal ore concentrates including nickel, copper, lead, titanium dioxide and zinc concentrates.
- Sulphur, including sulphur corrosion cases and alleged damage to sulphur cargoes.
- Fruit, including bananas, melons, apples, pineapples, plumcots, and grapes.
- Grain, including wheat, maize, soy bean, and rice.
- Cotton.
- Oil bearing seeds, such as sunflower seeds, soy bean, oil seed rape and other pulses.
- Seed cakes, including soybean meal, rapeseed meal, wheat bran pellets (pollard pellets) and palm kernel expellers.
- Animal feed-stuffs, such as wheat bran pellets, sorghum, soya bean meal and alf alfa.

Small Selection of Surveys:

- Copper ore concentrates (Bulgaria).
- Coal contamination to titanium slag (France).
- Coal self-heating, fire and water damage.
- Wet sulphur corrosion (China).
- Wheat contamination to ammonium nitrate (UK).
- Water damage to cargo of urea (UK).
- Damage to wheat bran pellets (Tunisia).
- Damage to cargo of soya beans (China).
- Rust scale contamination of soya bean meal (Japan).
- Insect infestation to cargo of wheat (Syria).
- Water damage to maize (Syria).
- Fumigant explosion (Abu Dhabi, Mozambique, Kenya and South Korea).
- Ergot contamination of wheat (Iraq).
- Urea contamination of wheat (Iraq).
- Fire in maize and wheat bran (Argentina).
- Fire in maize (Senegal).
- Liquefaction of nickel laterite cargoes (Indonesia and Philippines).
- Nickel laterite cargoes (Indonesia and Philippines).
- Water damage to apples, grapes, plumcots, apricots, plums & nectarines (UK).
- Hydrocarbon contamination of cocoa butter (UK and USA).
- Water damage to maize (Jordan, Algeria, Turkey, Spain and China).
- Water damage to rice (Egypt, Thailand and Liberia).
- Loading dispute concerning maize grade (China).

- Fungicide contamination to soybeans (China).
- Fire in palm kernel expellers (Malaysia).
- Damage to cargo of bananas (Turkey).
- Fire in rapeseed meal (South Korea).
- Liquefaction of iron ore fines (India).
- Water (cargo sweat) damage to rice (Liberia).
- Water damage to cargo of cocoa beans (Turkey).
- Adulteration of olive oil (Turkey).
- Soot damage to cars (Thailand and Indonesia).
- Liquefaction of bauxite cargoes (Indonesia and China).
- Self-heating coal cargoes (Indonesia, Columbia, Malaysia, India and China).
- Liquefaction of coal cargoes (Indonesia and South Korea).

Small Selection of Opinions Conducted:

- Water damage to milling wheat.
- Outturn deterioration to cargoes of grapes.
- Contamination to cellulose.
- Water damage to cargoes of maize and rice.
- Sulphur corrosion damage.
- Physical & environmental impact of cargo of Styrene and other chemicals.
- Deterioration to cargo of apples.
- Water damage to sunflower meal pellets.
- Safe carriage of wide range of chemical commodities.
- Damage to ship's equipment due to dust from aggregates.
- Contamination to cargo of PVC.
- Fuel oil contamination to frozen tuna.
- Water damage to cargo of vegetable oil.
- Nickel laterate carriage and liquefaction.
- Iron ore fines liquefaction.

Scientific Publications

Published over thirty-seven scientific papers in Chemistry/Biochemistry.