Atkins Human Factors has extensive experience integrating human factors into the design and operation of onshore and offshore oil and gas assets to improve safety, reliability, efficiency and effectiveness.

Human Factors in Oil and Gas
Capability Statement

Atkins HF Capability:
The Atkins Human Factors (HF) team focuses on the application of HF knowledge to the design, construction and operation of oil and gas assets. The objective is to ensure that systems are designed in a way that optimises human performance and minimises risks to health, personal or process safety, or environmental performance.

Atkins has global HF capability and extensive experience delivering significant value to the design and operation of both onshore and offshore facilities worldwide. With Human Factors specialists based in the UK, USA and Canada, we are able to provide a global service to our clients; including BP, Husky, Shell, Statoil, Fluor, Technip, SBM, Wood Group Mustang and WorleyParsons.

As the largest engineering consultancy in the UK, Atkins has considerable experience of providing HF expertise to project life-cycle activities, including:

Human Factors Integration (HFI):

- HF screening to define HF requirements at concept stage of a project life-cycle;
- Developing HF strategy documents and Human Factors Integration Plans (HFIPs);
- Delivering HF expertise to Front End Engineering Design (FEED) studies by carrying out tasks such as Valve Criticality Analysis (VCA), Vendor Package Screening, Task Analysis (TA), Human Machine Interface (HMI) and control room requirement analysis (including alarm management and control room systems reviews etc);
- HF validation activities at both the FEED and Detailed Design phases (e.g. HF reviews of general arrangements, 3D model reviews etc);
- Liaising with vendors and engineering contractors to ensure understanding and compliance with project HFE requirements;
- Detailed design of control rooms and facilities. Our capabilities in this area range from establishing user requirements through to the detailed design of specialist operational furniture and lighting.
Atkins Human Factors Capability

**Risk and Reliability:**
- Safety Critical Task Analysis (SCTA) and Human Error Identification / Analysis (HEI / A);
- Conducting qualitative human reliability analysis of safety critical tasks to develop operating procedures that are appropriate, fit-for-purpose, accurate and ‘owned’ by the workforce;
- Developing leading and lagging HF indicators as part of an integrated Process Safety Management System;
- Assisting in the development and review of procedures by systematically improving accuracy, readability and usability;
- Understanding the human contribution to accidents by: using analytical investigation techniques to ensure human factors are fully considered when identifying the root causes of incidents and accidents; reviewing incident and accident data to identify high priority and systemic human and organisational root causes for remediation;
- Evaluating risk control systems, such as permit-to-work and isolation procedures, to ensure human contribution to risk is properly managed (e.g. to prevent loss-of-containment incidents).

**Training / Job Design:**
- Providing HF ‘awareness training’ to project teams to ensure HFE design intent and requirements are communicated and understood project wide;
- Assessing safe staffing levels, workload, testing emergency preparedness and ensuring robust arrangements for communicating safety critical information during the initiation of on-site emergency plans etc;
- Using appropriate HF techniques and methodologies to develop Competence Assurance Systems (e.g. identify competence criteria, establish workplace performance standards and specify refresher training frequency for safety critical or non-routine tasks etc).
- Providing a framework for fatigue management to establish appropriate shift-working patterns and guidance for employees and employers on how best to manage fatigue during operations.
Atkins Human Factors Experience

**Client Name:**
Wood Group Mustang Engineering

**Project Name:**
Ichthys LNG Central Processing Facility (CPF) Topsides Project

**Short Description:**
Providing HFE support to the Detailed Design Phase of the Ichthys LNG CPF Topsides Design Project. On construction, the CPF will be the largest floating facility ever constructed. Full-time support was provided to Mustang Engineering in Houston, TX, to ensure that the design complied with Project and Australian requirements.

**Main HF activities included:**
- Development of the HFE Implementation Plan
- HFE review of vendor packages
- HFE support to milestone model reviews
- HFE review of Buildings and Architecture
- Valve Criticality Analysis
- Support to engineers and designers
- HFE training
- HFE Screening of Vendor Equipment
- HFE Tracking Database
- Development of HFE Quick Reference Guide for designers
- HFE support to mechanical handling

**Client Name:**
Chevron / SBM

**Project Name:**
Frade FPSO

**Short Description:**
Human Factors support was provided during the Detailed Design and Construction of the Chevron Frade FPSO platform. SBM were the main designer and operator of the platform. The platform is operational in Brazil and so had to comply with Chevron Human Factors standards and Brazilian regulatory requirements.

**Main HF activities included:**
- HF Awareness Training
- Control Room Review
- HF Model Reviews
- HFE for Skid packages
- Support to Noise and Vibration analysis
- HFID of Safety Critical tasks
- HFE for Displays and Controls
- Alarm Objective analysis
- Support to Design and Operational Safety Cases
- HF Issues Register
- HFE support to mechanical handling

**Client Name:**
Technip / Statoil

**Project Name:**
Aasta Hansteen

**Short Description:**
Human Factors and Working environment support was provided during Pre-FEED, FEED and Detailed Design for the Hull Design of a new Spar platform. The Spar platform will be operated by Statoil in Norway. Atkins Human Factors personnel were seconded to Technip who were the main EPC for the Hull. The design had to be compliant with Statoil and NORSOK requirements and Norwegian regulations.

**Main HF activities included:**
- Job Hazard Analysis
- Task Analysis for Safety Critical Areas
- Working Environment Health Risk Assessment
- Working Environment Area Limits Analysis
- Chemical Risk Assessment
- Climate Risk Assessment
- HF Model Reviews
- HFE for Skid packages
- HF Issues Register
Atkins Human Factors Experience

Client Name: Shell
Project Name: Mars B
Short Description: Human Factors support was provided to the design of a new Tension Leg Platform (with Drill Rig) for Shell during the Pre-FEED, FEED, Detailed Design and Construction phases. The platform will be operational in the Gulf of Mexico and had to comply with Shell Human Factors standards and US regulatory requirements.

Main HF activities included:
- HF Awareness Training
- Valve Criticality Analysis
- Material Handling Analysis
- Control Room Review
- HF Model Reviews
- HFID of Safety Critical tasks
- HFE for Skid packages
- HF Issues Register
- Construction HFE walkthroughs

Client Name: Shell
Project Name: Process Safety Critical Task Analysis; St. Fergus Gas Terminal, Aberdeen.
Short Description: Identification and analysis of Process Safety Critical Tasks to ensure the risk of human error on critical activities is ALARP. The analysis did not identify any single point failures but did identify opportunities for maximising human reliability through the improvement of key performance influencing factors such as safety critical valve and equipment labelling, procedure management and equipment availability.

Client Name: BP
Project Name: Human and Organisational Factors Review (Safe Staffing Assessment); Sullom Voe Oil and Gas Terminal, Shetland Isles, Scotland.
Short Description: Human Factors review of staffing arrangements to determine whether they are sufficiently robust to detect, diagnose and respond to hazardous events. The study also considered the management and organizational arrangements that influence the ability of teams to deal with hazardous situations. The output of the study has been used to address the regulators’ concerns regarding the adequacy of staffing arrangements to prevent and/or respond to hazardous incidents.

Below is a list of other example projects undertaken by the Atkins HF team for the Oil and Gas industry:
- Ergonomics review of FPSO Bonga focusing on operational interface;
- Design and HFE support to Ichthys FPSO (including Turret);
- Human Factors Engineering lead (whole construction cycle) for Jacobs NL;
- Design review of control room ergonomics and design guidance for new 300,000 tonne floating gas and oil platform for Shell Nigeria Exploration and Production, Amec and Foxboro;
- Human Error Analysis of safety critical tasks at Shell’s St. Fergus Gas Plant in Scotland UK as part of an ALARP demonstration to the Competent Authority;
- Provided HFE support to 3D model reviews for Canadian Green Corridor, Generic Pump House Skid HP1000, and Brassey 4-27;
- Attended HAZID for Waterton SCADA project as HFE specialist to provide input regarding risks to and from humans;
- Lead HFE Advisor for new CCR 14, Shell Pernis, Rotterdam NL;
- Conceptual design for Northern Gas Field Control Room, St. Fergus, Scotland;
- Conceptual and detailed design for Southern Gas Field Control Room, Bacton, Norfolk, UK;
- Lead Designer for Shell’s first UK Centralised Control Room for total refinery operations.
Permanent Staff: London (UK)

JOHN RYDER
HEAD OF HUMAN FACTORS FOR ATKINS (LONDON, UK)

- Bachelor of Arts Kingston University
- Master Of Arts Royal College of Art
- Fellow of the Chartered Society of Designers
- Fellow of the Institute of Ergonomics and Human Factors

John Ryder is a practicing Chartered Designer and an experienced multi discipline design team manager with a track record in delivering complex engineering and design projects in the highly regulated sectors of industry. John has over 30 years’ experience in the Design and Human factors industry and has been involved in the design and delivery of over four hundred control room suites.

John's experience has encompassed all phases of project design and delivery including conceptual design, master planning, preparation of specifications, and analysis of requirements and assessment of design compliance. He has expertise in the following areas:

- Conceptual design & master planning
- Ergonomics & Anthropometrics
- Industrial & Environmental Design in safety critical environments
- Product & industrial Design
- Large HFE Projects in the Highly regulated sectors
- Large & small Scale Ergonomics Audits
- Managing Teams of Professionals

NICK DICKETY
HUMAN FACTORS CONSULTANT (LONDON, UK)

- MSc Applied Psychology
- BA (Hons) Psychology
- Post Graduate Award in Health & Safety Enforcement
- Registered Member of the Institute of Ergonomics & Human Factors (UK) and Colleague of Human Factors & Ergonomics Society (Europe Chapter).
- Member of the Institute of Gas Engineers & Managers (IGEM)
- Member of Occupational Safety and Health Consultants Register (OSHCR)

Nick has extensive knowledge and experience of the oil and gas industry both in his current role as a Principal Human Factors Engineer and in also in his former post as a Specialist Inspector with the Health and Safety Executive (HSE). This position involved inspecting and auditing hazardous installations (Oil and Gas) across the UK and also leading the investigation of accidents, complaints and dangerous occurrences at COMAH top-tier sites.

Since joining Atkins Oil & Gas, he has worked on a number of projects including subsea valve criticality assessment, safety critical task analysis, working on a tool for the offshore/major accident hazard industry to assess Human Factors maturity and develop leading and lagging HF indicators as part of an integrated Process Safety Management System. He is currently delivering an HFE Plan and implementation for design and Execute Phases of Nyhamna Expansion and Linnorm over Draugen projects including HFE requirements and specifications for design in procurement and invitation to tender documents in line with Norwegian Norsok S-002 standard and Shell requirements.
MARK NEWMAN
SENIOR HUMAN FACTORS CONSULTANT (LONDON, UK)

- BSc (Hons) Psychology, Southampton University, 1992
- MSc Cognitive Science, Cardiff University, 1993
- PhD Psychology, Cardiff University, 1998

Mark has over 10 years’ experience providing Human Factors consultancy, mainly in safety critical industries. He has worked on projects ranging from control centre design to the development and implementation of a Human Factors Integration Plans. He has considerable experience in working to industry-specific and British Standards. In addition to his consultancy work, Mark has 7 years’ experience developing and conducting experimental tests in the field of Psychology/Human Factors. He has conducted academic research into workload assessment and function allocation. His key experience is in the following areas:

- Human Factors Integration
- Ergonomic Design of Workstations
- Human Computer Interface (HCI) design and assessment
- Human Error Identification and Mitigation
- Workload Assessment
- Experimental design

EMILY THORNE
HUMAN FACTORS CONSULTANT (LONDON, UK)

- BSc (First Class Hons.) Ergonomics, Loughborough University
- Diploma in Professional Studies, 2007
- Registered Member of the Institute of Ergonomics and Human factors (MIEHF)

Emily has over 5 years’ of experience working as a Human Factors/Ergonomics Consultant in the Rail, Oil & Gas, Nuclear and Aviation Industries. She is skilled at working with Engineering Design Teams and architects to provide practical engineered and ergonomic design solutions. Emily has experience in all phases of projects from concept through to detailed design and installation, including HF input to HAZOP, HAZID and risk assessments. Emily is proficient in using Autodesk Navisworks to conduct 3D model HFE design reviews, to identify access and maintenance requirements for safety critical equipment. Her key experience includes:

- Human Factors (Ergonomics) Integration
- Ergonomic Design and Best Practice Development of Workstations and Control Rooms
- Project planning and management of HFE to large scale engineering projects
- Managing user groups, stakeholder design reviews, desktop walkthroughs, workshops and full scale mock ups
- 3D Model HFE reviews
- HF assessment and assurance for maintenance issues
- Task Analysis including HTA and Link Analysis
- Understanding and defining user and functional requirements of complex systems
- Human Machine Interface (HMI) and Graphical User Interface (GUI) review and design development.
SIMON LAYTON
CHIEF HUMAN FACTORS CONSULTANT (BRISTOL, UK)
• BSc (Hons) Ergonomics, Loughborough University, 1989
• MSc Information Technology, Loughborough University, 1991
• MIEHF: Registered Member of the UK Institute of Ergonomics & Human Factors

Simon Layton has worked in the field of human factors and ergonomics for over 20 years, and has significant experience in undertaking and managing human factors projects across many sectors, including: energy, transportation, marine and other safety critical industries.

Simon has worked on a wide variety of large-scale infrastructure and asset design projects across the UK, and also has experience of supporting projects throughout the world. He recently spent 2 years in North America building Human Factors teams in Houston and Calgary, and has worked on projects in the Middle East, Australia and mainland Europe.

He has a comprehensive understanding of physical ergonomics, cognitive psychology and socio-technical systems analysis. In addition, he has extensive experience in project management, developing and managing a technical team, proposal writing and business development.

He has experience in the following areas:
• Workplace design, control room design and risk assessment
• Human error assessments (qualitative & quantitative)
• Assessment of human performance
• Workload assessment
• HF input to design review
• HF workshop facilitation
• HMI (Human Machine Interfaces)
• Safety culture & competency assessment
• Organisational effectiveness
• Development of Human Factors Engineering Integration Plans (HFEIP)
• Project management
• Business development & proposal writing
• Team management

TAMARA MAYNARD
HUMAN FACTORS CONSULTANT (BRISTOL, UK)
• MSc Human Factors/ Ergonomics, Loughborough University
• BA (Hons) 3D Design for Sustainability, University College Falmouth

Since joining Atkins, Tamara has gained experience in providing human factors and design support to major CAPEX Oil and Gas facilities. Most recently Tamara has had the role of Lead Human Factors Consultant on the Detailed Design Phase of a large semi-submersible LNG Central Processing Facility (CPF) that is to be installed offshore Western Australia.

Tamara has experience in the following key areas:
• Providing HFE support to Project Milestone and vendor 3D model reviews
• Working with vendors to develop designs and ensure the implementation of project HFE requirements
• Developing and Implementing Human Factors Integration Plans (HFeIP)
• Identifying operational and user requirements
• Design of control rooms/ facilities
• Space planning and design
ALEX MORLEY

SENIOR HUMAN FACTORS CONSULTANT (WARRINGTON, UK)

- BSc (Hons.) Ergonomics, Loughborough University
- Diploma in Professional Studies, 2005
- Graduate Member of the Institute of Ergonomics and Human factors (GMIEHF)

Alex has worked as a Human Factors/Ergonomics Consultant in the Oil & Gas, Nuclear, Rail and Manufacturing Industries for over 7 years. With experience ranging from control centre and workstation design projects through to full plant Human Factors Engineering studies, he has been involved in all stages of projects, from initial scoping through to installation and commissioning. Alex has extensive experience in the use of various computer aided design packages, utilising these to not only carry out detailed design reviews, but also to create design drawings and visualisations of key design modifications to ensure human factors compliance of client projects. Alex's key experience includes:

- Human Factors (Ergonomics) Integration
- Ergonomic Design and Best Practice Development of Workstations and Control Rooms
- Managing user groups, stakeholder design reviews, desktop walkthroughs, workshops and full scale mock ups
- Project planning and management of HFE to large scale engineering projects
- CAD modelling and drawing creation
- 3D Model HFE reviews
- Task analysis, goals analysis and link analysis for review of client designs and processes
- Industrial product design for ease of installation, usage and maintenance
- User-centred requirements capture and design.

SIMON MACMULL

SENIOR HUMAN FACTORS CONSULTANT (COPENHAGEN, DENMARK)

- BSc (Hons) Ergonomics, Loughborough University, 2007
- Registered member of the Institute of Ergonomics and Human Factors (UK) (MIEHF)

Simon has over 5 years' of experience working as a Human Factors/Ergonomics Consultant with experience in the design of control rooms usability, human computer interaction and transport and socio-technical systems. He has experience in working with multi-disciplinary design teams to provide real engineered and ergonomic design solutions. His main areas of expertise are in:

- Human Factors (Ergonomics) Integration to multi-disciplinary projects
- Gaining and understanding user and functional requirements of complex systems
- Managing user groups, stakeholder design reviews, walkthroughs, workshops and full scale mock-ups
- Ergonomic design and best practice development of workstations and control rooms
- Task Analysis of processes and procedures
- Link Analysis of communication links between and within teams
Permanent Staff: Houston (USA)

CHRISTOPHER PARKER
PRINCIPAL HUMAN FACTORS CONSULTANT (HOUSTON, TX)

- MSc Experimental Psychology, Human Factors (Expected 2012)
- BA Psychology
- Registered Member of the Human Factors and Ergonomics Society since 1996 (USA) and American Society of Naval Engineers (USA)

Mr. Parker is educated and practiced in applications of Human Factors Engineering (HFE), Human Systems Integration (HSI), ergonomics and related disciplines for both commercial and government clients for almost 15 years. Currently, he is leading the US Atkins HF team.

His previous experience includes but is not limited to:

- Currently providing Human Factors support to the BP Gulf of Mexico Safety and Operations Risk (S&OR) group.
- HF lead for SBM on the Stones FPSO project for Shell. Support provided includes providing Human Factors awareness training, model reviews, HF vendor package reviews and other HF guidance.
- Authored HFE design standards for Shell Exploration and Production Company (SEPCo) to be applied to all Shell offshore, onshore and arctic exploration and production facilities.
- Revised American Bureau of Shipping (ABS) Guidance Notes for the Implementation of HFE into the Design of Offshore Installations
- USCG HFE Lead for all surface asset (ship) acquisitions for over three years. Recognized by the USCG customer and IPTs for superlative service.
- Managed HFE analyses of USCG assets including a heuristic, usability and HFE risk assessment of the USCG Response Boat, Medium (RB-M) as part of Operational Test and Evaluation and a HFE design review of bridge and galley mock-ups of the USCG Fast Response Cutter (FRC).
- Conducted tailored HFE training courses for project teams, customers, clients, and professional organizations.

SAM RANASINGHE
SENIOR HUMAN FACTORS CONSULTANT (HOUSTON, TX)

- MSc Human Computer Interaction and Ergonomics
- BEng (Hons) Computer Systems Engineering
- Registered member of the Institute of Ergonomics & Human Factors (UK) and Ergonomics Society (USA)

Sam Ranasinghe is a HFE Consultant with a Masters degree in Ergonomics. He has over 10 years’ experience of applying Human Factors across the Defence, Nuclear and Oil & Gas domains. Sam has provided HFE support to various projects, working alongside design engineers to ensure HF principles are incorporated within the design. Sam’s experience includes development of HFE plans for high hazard industrial clients such as the Atomic Weapons Establishment; establishing a detailed set of HFE specifications for the Future Rapid Effect System (FRES) for the UK armed forces. Sam has contributed to the HFE section of the Chevron Frade Operations Safety Case and has conducted HF assessments of equipment for British Gas and BHP Billiton. Sam has also undertaken HSE work including a Layout Assessment for the Shell and Quantified Risk Assessments for Chevron.

Sam’s qualification and experience means he is competent to carry out numerous Human factors techniques such as Task Analysis, Risk Assessment, Human Error Analysis, Man-machine Assessment / Design, Workplace-Environment Assessment / Design. Sam is a Registered Member of both the UK and US Ergonomics Societies.
BEN POBLETE
CHIEF CONSULTANT (HOUSTON, TX)

- BASc in Chemical Engineering,
- MPhil in Chemical Engineering,
- P.Eng. - APEGA

Ben Poblete has worked for 26 (twenty six) years as a registered Professional Engineer in the global marine and Project (EPC)/Operational onshore and offshore oil and gas industry. His career path progressed from Loss Prevention Advisor, to a Senior Loss Prevention Engineer, to a Loss Prevention Specialist and finally as a Loss Prevention / Loss Control Engineering Supervisor for onshore and offshore oil & gas, operational and projects engineering design, experience with Mobil Oil Corporation in Canada and the UK North Sea. His career progression continued as a Senior Technical Risk Management Specialist & Senior Surveyor (Global) and Operational HSE (Americas) Manager for Lloyd’s Register North America and provided technical risk management support, for public and private entities. He then worked as a Director of Global Projects QHSSE Assurance for Cameron and this experience provided him with oil and gas industry supply chain integrity experience in the execution of global major oil and gas subsea projects across all the manufacturing and fabrication sites. He has now come back full circle to his technical passion and started working for Atkins Energy Group, in the Americas, as a Chief Consultant in the HSE and Reliability group and is tasked to support organizations in minimizing safety, environmental and business risk in all their activities through the preparation of risk management solutions (technical safety to safety management systems) during project, operations and facility life cycle phases. His background and expertise spans from the development and auditing of management systems (BS/OHSAS 18001 and ISO 14001 External Lead Auditor) to the application of human factors engineering in design or operations up to the regulatory review and audit of risk management studies and systems for oil and gas facilities and supply chain.

GERRY MILLER
CHIEF HUMAN FACTORS CONSULTANT (HOUSTON, TX)

- M.A. Clinical and Experimental Psychology, Wichita State University, 1962
- B.S. Civil Engineering Wichita State University, 1958
- Certified Professional Ergonomist (CPE)
- Human Factors and Ergonomics Society (Full Member)

Gerry Miller has been employed for 50 years as a Human Factors Engineer (HFE) with 30 years spent as a HFE consultant in the marine industry. Clients have included the U.S. Navy, private shipyards in the U.S., Canada, and Singapore, naval architecture and marine engineering companies, U.S. Coast Guard (USCG), General Accounting Office (GAO), commercial shipping companies in the U.S., Canada, and Venezuela, offshore oil and gas exploration and production (E&P) companies in the U.S., Singapore, Brunei and Canada, other HFE consulting firms, and several law firms (serving as an expert witness in maritime accident cases).


Gerry also authored over 70 papers, reports and articles on integration of HFE into the design of military and commercial ships and offshore structures.
Permanent Staff: Calgary (Canada)

**Ben Woodcock**

**Senior Human Factors Consultant (Calgary, Canada)**

- BSc (Hons) Ergonomics
- Registered member of the Institute of Ergonomics and Human Factors (UK) and the Human Factors and Ergonomics Society (USA).

Ben Woodcock is a Human Factors Consultant with an honours degree in Ergonomics. He has ten years experience in applying Human Factors throughout the Oil and Gas, Rail, Nuclear and Defence industries.

Ben has worked on several major oil and gas projects, including providing Human Factors support to the Chevron Frade project (EPCI Phase 4) which involved planning and implementation of a comprehensive HF Integration Plan. Ben has also provided HF support to BP’s integrity management program; control room design and operational review for tie-in of new wells to BP offshore facilities in Trinidad and Tobago; and supported the comprehensive redesign of a control room within a UK refinery. Ben has undertaken assessments and written documentation for facilities in both oil and gas and the nuclear sectors. In addition to this work, Ben has also provided HF project management support to a number of other projects.

Ben’s qualification and experience means he is competent to carry out numerous Human factors techniques such as Task Analysis, Risk Assessment, Workload and Staffing Level Assessment, Human Error Analysis, Man-machine Assessment and Design, and Workplace and Environment Assessment and Design. Ben is a Registered Member of the Ergonomics Society (UK) and the Human Factors and Ergonomics Society (USA).

**Claire Munro**

**Senior Human Factors Consultant (Calgary, Canada)**

- MSc Ergonomics/ Human Factors
- BSc (Hons) Psychology
- Certified Canadian Professional Ergonomist and member of the Association of Canadian Ergonomists

Claire Munro is a Senior HF Specialist based in Calgary, Canada with experience of supporting world-wide design and build projects in the oil and gas industry. Claire has extensive experience in assisting in the design of operational environments to reduce the risk of musculo-skeletal disorders and human error in operations and maintenance staff. A selection of Claire’s experience is outlined below.

- In house HFE support to Oil and Gas Major in Calgary, Canada. Providing HF advice to a wide variety of oil sands and onshore gas Brownfield and Greenfield engineering design and construction projects across Canada.
- Provision of human factors design support as part of a Houston based design team for a major LNG project located off Western Australia. This included the development of a Human Factors Integration Plan (HFIP) and the delivery of the activities outlined for FEED: valve criticality analysis, materials handling review, style guide and alarms philosophy review, as well as analysis of architectural layout for the personnel quarters and control facility.
- Provided an assurance review of EPC-provided human factors reports for a major Oil and Gas Company. Identified gaps in the reporting and assisted in gaining an acceptable level of assurance in order to approve detailed design drawings.
- Conducted competency assessments for subsea personnel on board drill ships: psychometric test administration (Level A trained), observations and BARS interviews.

Claire has previously worked in the Rail Industry assisting in the design of new stations and control facilities to ensure that operational requirements were identified and met in design.
JASON KUMAGAI  
**PRINCIPAL HUMAN FACTORS CONSULTANT (CALGARY, CANADA)**

- MSc Kinesiology – Psychomotor Behaviour  
- BSc (Hons) Kinesiology – Ergonomics Option Co-op  
- Canadian Certified Professional Ergonomist (CCPE) and Board member of the Canadian College for the Certification of Professional Ergonomists  
- Certified Human Factors Professional (CHFP) with the Board of Certification in Professional Ergonomics  
- Project Management Professional (PMP)

Jason Kumagai is a Principal HF Consultant based in Calgary, Canada supporting world-wide design and build projects in the oil and gas industry. Jason has extensive experience in the identification and management of risks associated with physical demands and human error.

Jason has worked in several industries including Healthcare, Defence, Rail, Road Transportation and various Office/Industrial settings.

Jason's current project is the provision of human factors support to an HSE team of an off-shore platform located off of Eastern Canada. This includes the development and implementation of a Human Factors Strategy that incorporates HF awareness and education, HF Safety Critical Task Analysis, Fatigue Management and Incident Investigation.

**Contractor Staff:**
In addition to our permanent staff, Atkins also has a number of contractor HFE specialists available; details available on request.

For more information please contact:  
**John Ryder - Head of Human Factors**  
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John.Ryder@atkinsglobal.com