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## Plan Overview

*A Data Management Plan created using DMPonline*

**Title:** Hector's Plan

**Creator:** Hector Iacovides

**Principal Investigator:** Hector Iacovides

**Data Manager:** Hector Iacovides

**Affiliation:** University of Manchester

**Template:** University of Manchester Generic Template

**ORCID ID:** 0000-0003-0506-2609

### **Project abstract:**

This is a collaborative with EDF, Westinghouse, the University of Sheffield and STFC, managed by Fraser-Nash. The work proposed is the product of extensive discussions among the partners and in line with the BEIS prescriptive requirements. Our contribution will be to carry out research and also produce a technical volume and a case study for the CFD modelling of passive cooling loops of nuclear reactors.

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### **Copyright information:**

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# Hector's Plan

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## Manchester Data Management Outline

### 1. Is this project already funded?

- No

**Will you be applying for funding from any of the following sources? If your funder isn't listed, please enter in the free text box provided.**

BEIS

### 3. Is The University of Manchester the lead institution for this project?

- No (please provide details of the lead institution below and your role in the project)

Fraser-Nash Consultancy

### 4. What data will you use in this project (please select all that apply)?

- Acquire new data

Our simulations will generate numerical data

### 5. Where will the data be stored and backed-up during the project lifetime?

- University of Manchester Research Data Storage Service (Isilon)

### 6. If you will be using Research Data Storage, how much storage will you require?

- < 1 TB

**7. If you have a contractual agreement with a 3rd party data provider will any of the data associated with this project be sourced from, processed or stored outside of the institutions and groups stated on your agreement?**

- Not applicable

### 8. How long do you intend to keep your data for after the end of your project (in years)?

- 5 - 10 years

**Questions about personal information**

Personal information or personal data, the two terms are often used interchangeably, relates to identifiable living individuals. Special category personal data is more sensitive information such as medical records, ethnic background, religious beliefs, political opinions, sexual orientation and criminal convictions or offences information. If you are not using personal data then you can skip the rest of this section.

Please note that in line with [data protection law](#) (the General Data Protection Regulation and Data Protection Act 2018), personal information should only be stored in an identifiable form for as long as is necessary for the project; it should be pseudonymised (partially de-identified) and/or anonymised (completely de-identified) as soon as practically possible. You must obtain the appropriate [ethical approval](#) in order to use identifiable personal data.

**9. What type of person identifying information will you be processing (please select all that apply)?**

- No sensitive or personal data

**10. Please provide details of how you plan to store, protect and ensure confidentiality of the participants' information as stated in the question above.**

Not applicable

**11. If you are storing personal information will you need to keep it beyond the end of the project?**

- Not applicable

**12. Sharing person identifiable information can present risks to participants' privacy, researchers and the institution. Will the participants' information (personal and/or sensitive) be shared with or accessed by anyone outside of the University of Manchester? This includes using 3rd party service providers such as cloud storage providers or survey platforms.**

- No

**13. If you will be sharing personal information outside of the University of Manchester will the individual or organisation you are sharing with be outside the EEA?**

- Not applicable

**14. Are you planning to use the personal information for future purposes such as research?**

- No

**15. Who will act as the data custodian or information asset owner for this study?**

H. Iacovides

**16. Please provide the date on which this plan was last reviewed (dd/mm/yyyy).**

15-2-2019

## **Project details**

### **What is the purpose of your research project?**

The purpose of this project is to advance our understanding of the operation of passive cooling loops in nuclear reactors, through numerical simulations.

### **What policies and guidelines on data management, data sharing, and data security are relevant to your research project?**

The data generated are simply numerical data sets which represent the computed performance of passive cooling loops. The intention is to disseminate this information as widely as possible.

## **Responsibilities and Resources**

### **Who will be responsible for data management?**

The named PDRA on the project, Dr Dean Wilson

### **What resources will you require to deliver your plan?**

The storage space identified earlier.

## **Data Collection**

### **What data will you collect or create?**

Will create numerical solutions of flow and thermal fields, in ASCII format.

### **How will the data be collected or created?**

The data will be the outcome of time dependent CFD simulations of 2- and 3-Dimensional cooling loops.

## **Documentation and Metadata**

### **What documentation and metadata will accompany the data?**

Documentation on the content and format of each file, on loop geometry and on operating conditions.

## **Ethics and Legal Compliance**

### **How will you manage any ethical issues?**

There are no ethical issues involved.

**How will you manage copyright and Intellectual Property Rights (IPR) issues?**

No IPR issues involved

## **Storage and backup**

**How will the data be stored and backed up?**

We will aim to use Research Data Storage

**How will you manage access and security?**

No confidentiality issues involved

## **Selection and Preservation**

**Which data should be retained, shared, and/or preserved?**

We expect to produce a large number of animations which present the temporal development of the each of the cooling loop studied at different operating conditions. These will need to be maintained and made accessible on-line.

The data from some of the high-Fidelity simulations will also need to be preserved to enable further validation studies.

**What is the long-term preservation plan for the dataset?**

We will aim to upload the important data sets to recognised sites which archive datasets for CFD validation test cases

## **Data Sharing**

**How will you share the data?**

See earlier reply

**Are any restrictions on data sharing required?**

No