

HIAD Newsletter No. 2 – 11 December 2006

About HIAD

The Hydrogen Incident and Accident Database (HIAD) was launched in July 2006. It has been developed as a tool that should serve various purposes such as being an open communication platform for safety lessons learned and risk communication as well as a potential data source for risk assessments. It will be the repository of any accidental event related to hydrogen technologies.

JRC and DNV have conceptually developed HIAD, with the assistance of HySafe partners. The JRC developed the web-interface (see Figure 1), which is hosted by the JRC's ODIN portal: <https://odin.jrc.nl>.



Figure 1: HIAD website

HIAD purpose and process

The overall purpose of HIAD is to assist stakeholders in better understanding hydrogen-related undesired events (incidents, accidents) and to provide a framework to contribute in the long term - when sufficient statistical evidence will eventually become available - towards improving corresponding risk assessment and management.

As agreed by the HySafe consortium in the initial phases of Work Package 5 (WP5), see HySafe Deliverable 22, it is important to highlight that HIAD is not a standard industrial accident database, but rather an open collaborative safety/risk communication process, and hence not a tool for immediate use in quantitative risk assessments. However, as for all databases holding information about accidents and incidents, HIAD may already at this stage of the development serve as a source for the hazard identification step in a risk assessment of hydrogen applications.

The HIAD Process is subdivided into 3 phases: pre-operation (before the HIAD release), limited operational (regular updates of HIAD to HySafe -selected users) and operational (regular updates of HIAD to unlimited users); see Figure 2.

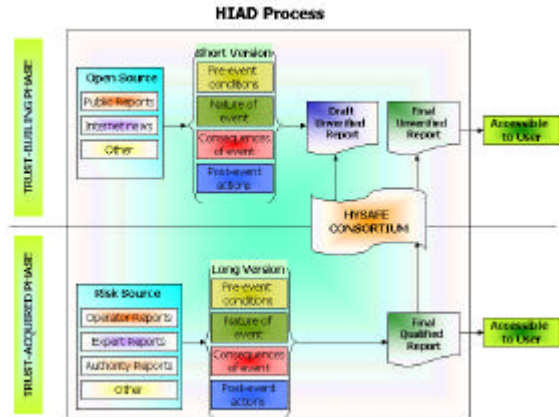


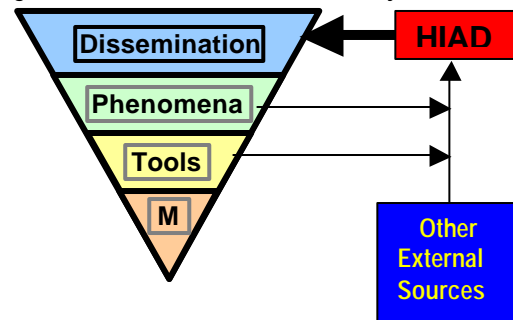
Figure 2: HIAD Process

HIAD within HySafe “Dissemination” Cluster

HIAD is part of the HySafe “Dissemination” Cluster whose aim is to communicate to stakeholders the knowledge available on hydrogen safety issues. This cluster forms the interface with public perception of hydrogen safety. It includes 5 HySafe WPs representing the main activities on dissemination and spreading of knowledge in the area:

- Biennial Report on Hydrogen Safety (WP1)
- Hydrogen Incident and Accident database (WP5)
- International Hydrogen Safety Conference (WP14)
- e-Academy of Hydrogen Safety (WP15)
- Regulations, Codes and Standards (WP16)

Figure 3 shows HIAD in relation to the HySafe clusters.





Data Retrieval

Based on the database specifications outlined in deliverable D22, JRC developed and implemented a web-enabled user interface for the retrieval of HIAD records based on Java server technology (J2EE), which retrieves requested data from the DB server, processes the data as required and then transfers data in HTML format to the browser of the end user.

Data Entry

In this first phase of HIAD, the data entry was carried out with the use of a HIAD Excel Template (see Figure 4), which is still available for download at the HySafe website. In January 2007, the JRC will start the development of the beta version of the HIAD web-based *Data Entry*, whose planned launch date for testing by the HySafe partners is 15 March 2007.

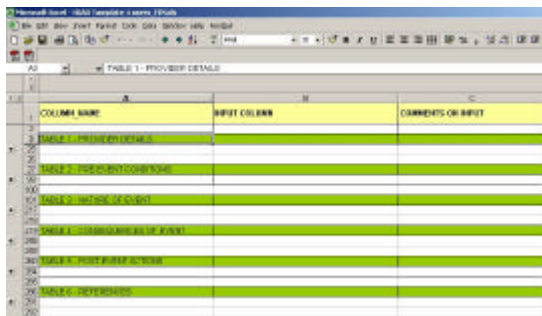


Figure 4: HIAD excel template

HIAD in 2007

Here below are the foreseen HIAD web-related activities:

| Date | Activity |
|--------|---|
| 15 Mar | - 1 st beta version of Data Entry to send to HySafe partners to beta-test - Updated Data Retrieval to be launched |
| 15 May | Deadline for comments on DATA ENTRY PART |
| 15 Jun | Deadline for comments from users on DATA RETRIEVAL part |
| 15 Sep | Launch of updated DATA RETRIEVAL |

HIAD and HySafe syndication

A request to JRC was made to investigate the feasibility of entering the HySafe Portal using the HySafe password and username to be able to access HIAD through ODIN, without having to re-enter the username and password again. JRC and the HySafe Portal Administrator discussed the technical details and have identified a simple way of achieving this.

As HySafe and JRC's ODIN portal use their own authentication systems, this means that the users will have to be registered twice, i.e. in BOTH portals. The registration in ODIN is simple and hence will need to be carried out by the HySafe user only once. Then the ODIN administrator will provide the HySafe partner registered on ODIN the access to HIAD through HySafe. A double authentication process will automatically be triggered, so the HySafe user will be redirected to HIAD through JRC's ODIN, without having to re-enter username and password again. This is a quick solution to be implemented early 2007 between HySafe and ODIN.

HIAD Publications so far

So far, there are two main HIAD-related publications, i.e. deliverables 22 and 60 (listed below), which are available for downloading from the HySafe website: <http://www.hysafe.net>

- **D22:** HIAD Specification and definition of its contents, operation and structure
- **D60:** HIAD User Manual

The user manual will also be available for download from the HIAD website very soon.

How to participate in HIAD

In order to access the HIAD database, you must first register at the following URL: <https://odin.jrc.nl>. For HySafe partners, you will soon be able to access HIAD through the HySafe Portal with your HySafe username and password (see section on "HIAD and HySafe syndication" above). In addition:

1. Please provide us any information you may have regarding hydrogen incidents and accidents.
2. Please provide us your comments on the HIAD interface and HIAD process.

HIAD Work Package Leaders:

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