

TURBINE DE TRÈS BASSES CHUTES,
 VERY LOW HEAD TURBINE:
 NEWS LETTER N° 5

THE 1ST VLH HAS BEEN PRIMED ON OUR
 DEMONSTRATION SIT OF MILLAU

IN THIS ISSUE:

<i>The 1st VLH has been primed on our demonstration site of MILLAU</i>	1
<i>Unloading and assembly of the VLH in Troussy</i>	1
<i>Unloading and assembly of the VLH in Troussy</i>	2
<i>Placing of the VLH in its final location</i>	3

Dear Friends and Partners,

I am rather thrilled to address you this 5th newsletter to announce you that the 1st VLH has been primed on March 6th, 2007, in its Troussy hydroelectric power plant location, in Millau (Aveyron).

Under a bleak sky, the VLH has been laid down by a 80-T crane in its definitive location.

Subsequent tests performed on March 8th and filmed by television have proven a great ease of laying and removal of the unit.

The operation is carried out in no more than a few tens of minutes.

The goal is now within our reach, and we are immediately starting the very dense test program planned for the next weeks.

First, mechanical and hydraulic off-load tests, followed by electric tests, and the first coupling, and finally load tests.

In April, scientific tests aiming at

demonstrating the fish-friendliness of the VLH will be starting. Several hundreds of smolts (2 year-old salmon migrating towards the ocean) will be released in the VLH in operation, then recovered in a special net to be counted and studied.

The same operation will take place in autumn with eels.

A new letter will be published by the end of April to inform you of the results of the tests of the VLH and of the 1st fish-friendliness tests.

Yours sincerely,

Marc Leclerc
 Manager



www.vlh-turbine.com

UNLOADING AND ASSEMBLY OF THE VLH
 IN TROUSSY

The serious matters have started on February 27th with the arrival on site of the crane and of the first parts from the Ets Labarthe where the factory assembly and the testing assembly had been performed.

The runner, then the alternator and the two half-distributors have first been unloaded from the trucks and temporarily stored to be picked back up by the crane in its definitive position.



Unloading of the runner



Unloading of the Generator

VI H assembly and receive the alternator.



Runner with all its blades

They have then been transferred to the assembly area formed by a clean planar surface reinforced by 8 concrete graded blocks.



Transfer of the runner to the assembly area



Unloading of half distributor

The runner has first been laid down on its blocks.



Assembly of the second distributor half

« Site assembly of prefabricated elements »

After assembly of the blades, the two half-distributors have been placed alongside each other and assembled around the runner to form the supporting structure of the



Assembly of the generator on the turbine shaft

PLACING OF THE VLH IN ITS FINAL

Once fully assembled, the VLH has been hung by 4 points to an assembly specially designed for the craning of the assembly weighting 26 tons.



Horizontal rotation from the assembly area

It has then been placed in horizontal position above its location, bearing on its upper guide



VLH in horizontal position above its final location

bearings. The unit has then slowly pivoted on its



VLH in inclined position before opening gates

upper bearings to practically reach its work position inclined by 45° with respect to the vertical direction. The VLH has touched water for the 1st time!

An upstream gate has then been partially raised to cause a sluicing in-



Cleaning of the support surfaces by water sluicing

tended to clean the contact surfaces of the unit.

This operation has shown itself to be very efficient. Within a few minutes, the surfaces had been cleaned from the stones which were encumbering them.

Then, under this light nape, the VLH has smoothly made a few revolutions



First runner revolutions of the VLH

off load.

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