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Madrid, June 20<sup>th</sup> of 2005

Dear Sir,

As you may have been informed, the 25<sup>th</sup> of August of 2004 a serious incident happened in Vandellos-2 NNP, on the northeast coast of Spain. This event has had extensive national and international media coverage and has attracted environment concerned non-governmental organisations attention.

On the 1<sup>st</sup> of June, the Consejo de Seguridad Nuclear (CSN), the Spanish nuclear regulator, made publicly available the attached final event assessment report of the incident pursuant the rules of the IAEA/NEA International Nuclear Event Scale (INES). In this assessment the incident, which originally was rated level 0, is upgraded to a final level 2 rating.

Greenpeace strongly disagrees with the final rating concluded by the CSN and would like to bring to your attention several serious shortcomings and deviations from the guidance provided for in the INES User's Manual. Greenpeace is of the view that the only objective of the CSN behind this decision to water down the event was stopping further criticism from political groups, the civil organisations and specialised media. However, this attitude will prevent the international community benefiting from fair and reliable lessons learned.

## Summary of the event

According to the information publicly available, several man-holes of the two loops of the Essential Service Water System (ESW) were heavily impaired by extensive external corrosion due to aggressive seawater environment. Indications of corrosion in several manholes were first observed as early as in 1993, but the owner did not take any prompt corrective action. On the contrary, the corrosion continued growing freely since then. In 1999 and 2000 corrosion breakthrough was observed by a maintenance company and reported to the operator. Again, there was no action. In May 2005 there was a leak in a man-hole of ESW loop B. The incident was kept hidden by the operator and instead of giving notice to the CSN the operator prepared a repair plan to solve the problem in less than 72 hours in case a new major leak reappear. The 25<sup>th</sup> of August a circumferential rupture of a man-hole of loop B was detected. Similar degradation was found in the parallel man-hole of loop A.

In the face of the seriousness of incident, the plant was shutdown, although it was restarted in less than three days after simply reinforcing the two more damaged man-holes (one in loop A and one in loop B), leaving untouched other man-holes with substantial corrosion. It must be highlighted that during the repair operations a loss of external power was also experienced, worsening even more the scenario.

The plant has operated the rest of the operating cycle with recognised non compliances. On 15<sup>th</sup> of March 2005 a new leak forced the operator to move forward the scheduled shutdown for fuel loading.

## Main features of the assessment

The CSN report divides the assessment into two stages: before the rupture of a man-hole of loop B and since then until operability of both loops was restored.

In the first stage, the CSN assessment, although recognises a partial degradation of defence in depth, consideration of the simultaneous failure of the two loops of the ESW is excluded, arguing that the rupture of the first loop will be an early indication that would prevent the rupture in the redundant loop taking immediate actions. Given the fact that both loops were similarly corroded, Greenpeace disagrees with this argument. This is because once there is failure in one of the ESW loops, there is an automatic signal to start-up the second loop and the likelihood that the pressure transient upon start-up lead to its failure should not be disregarded, as the CSN does in the assessment. Consequently Greenpeace believes that a subsequent failure of the second loop immediately after the first one should have been deemed realistic.

In both stages, when assessing the response to relevant initiators, the CSN credits the operation of non-safety components to meet the Primary System Integrity safety function. Specifically, the CSN credits the operation of the pump used to carry out the periodical overpressure test of the primary system as well as the so-called station back-out diesel generator. Neither the pump nor the station black-out diesel generator are classified as safety components within the plant Technical Specifications and are not attached to any genuine Limitative Condition of Operation. Consequently, giving credit to these components is an option outside the guidance of the INES User's Manual. This is particularly relevant in the assessment of the second stage, since the conclusion of an inadequate fulfilment of the Safety Function would have led to a level 3 basic rating, as it is recognised in the report.

Remarkably, in the assessment of the second stage, the CSN concludes that a basic level 2 rating is the most appropriate and the 1 level upgrade due to additional factors (essentially serious breaches of safety culture) is compensated with 1 level downgrade due to the short duration of the unavailability compared to the time span between surveillance tests. This makes a final level 2 rating, which Greenpeace considers unacceptable.

In addition, Greenpeace would like to underline that there are other factors affecting the event that were not taken into account in the assessment carried out by the CSN, among them:

- On the 28<sup>th</sup> of August, with one loop of the ESW unavailable, there was a Loss of External Supply due false signal due to a known common cause failure affecting several relays. The problem was known since long, but the issue remain unsolved by then.
- On 26<sup>th</sup> of August, after the affected man-hole of loop B was first repaired, while the loop A was inoperable to fix the parallel man-hole, a new leak was detected in loop B, but the owner did not take this into account and continued the operation without informing the CSN and without accomplishing any further corrective action.
- After the start-up of the plant on the 30<sup>th</sup> of August following the event, a number of new leaks in man-holes of the ESW were detected, in some cases hiding the information to the CSN. In spite of that, the CSN never requested to shutdown the plant and always allowed it continuing its normal operation with minor repairing until 15<sup>th</sup> of March, when the plant was finally shut down.

Greenpeace strongly believes that the behaviour of the CSN in addressing this serious event of Vandellos 2 NPP is fully unacceptable and even blemishes the image of the whole nuclear sector. In this regard, Greenpeace would expect a strong reproach to the CSN attitude coming from the main international organisations, as well as from other peer organisations, if they really want to be credible in the eyes of the public.

GP would deeply appreciate the feedback independent opinion of the IAEA experts in relation to the CSN's assessment of Vandellos-2 event and about the genuine use of the INES user's manual to conclude the event rating.

Yours truly,

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