

Impact of AREVA's Uranium Operations in Niger and Gabon **Health Monitoring Stations: Real Progress or Smokescreen?**

AREVA is expected to announce tomorrow the creation of Health Monitoring Stations around the uranium mines operated by the group across the world, starting with Niger and Gabon. CRIIRAD is raising several questions and expressing numerous reservations on this project. If AREVA doesn't propose certain guarantees (inclusion of all concerned; taking into account the pathologies called into question; compensation measures adapted...) and doesn't take parallel steps to reduce the health and environmental impact of its activities, the establishment of these monitoring stations will not constitute real progress.

Does AREVA's creation of health monitors around uranium mines constitute real progress or is it a p.r. exercise? CRIIRAD calls on the workers and those whose interests are supposed to be defended by these agreements to avoid premature celebration and hopes to bring to the attention of citizens and the media several points:

1) Conflict of Interest

The Health Monitoring Stations have it as their task to study the health impact of the extraction of uranium by AREVA and its subsidiaries and to compensate those suffering from pathologies as a result of its extraction activities.

The fact that these structures are put in place by the industry causing pollution shows clearly the inadequacies of the health protection measures and itself constitutes a basic anomaly. The conflict of interest within the stations promises nothing good.

2) Is AREVA ready to give the victims serious guarantees in taking the matter on?

To judge the measure's quality will in any case require vigilance to ensure that all affected persons are taken into account, that all pathologies called into question are considered and that the enterprise recognize effectively a link between its activities and the pathologies involved.

Persons Concerned

The first question is to know whether the agreements only cover salaried employees or the totality of the population surrounding the extraction sites. In many cases people's exposure is effectively far from negligible as far as health is concerned and the dosage received, for certain sites, is over the admissible limits.

List of Pathologies

Is AREVA ready to take into account all pathologies liable to be attributed to the chemical and radiological pollution resulting from uranium extraction?

Often only the pathologies listed on register no. 6 of the French social security code are taken into account. Well, it's an outdated list from 1984 (cf annex 1) and includes only three types of radio-induced cancer. Current knowledge on the effects of chronic exposure to weak doses of radiation shows that health effects involve numerous types of cancer and the totality of vital functions. It can be a question of cardiovascular effects,

kidney ailments, neurological signs, etc. and not only of broncho-pulmonary cancer, bone sarcoma, and leukemia. It will be necessary to also factor in the effects of this synergy between chemical and radiological pollutions.

Burden of Proof

Will the compensation measure proposed by AREVA be oriented toward the benefit of the sick?

If the enterprise demands, for example, that the sick provide proof of a certain, causal link between their ailment and work conditions, there will be practically no chance that people are eventually compensated, because there is only rarely a signature of exposure to weak radiation dosage. In that case the sick would play more the role of guinea-pig, the health monitors of compiling health data without real benefit to the sick.

Other questions will, of course, have to be put to AREVA, such as: compensation of legal heirs to the dead; the durability of compensation measures; the independence and competence of the experts who will have to rule on the various cases, etc.

3) Is AREVA ready to really undertake to reduce the impact of its activities?

For CRIIRAD, it is very important that the people and workers made sick by the casual practices of operation be correctly compensated and treated. It will require being vigilant that care be lavished as long as the impact is effective. It can be a matter of several decades, indeed hundreds of years after the end of the operation if the sites are not correctly restored, which is unfortunately also the case for the former AREVA sites in France or Gabon.

It is essential moreover that AREVA undertake to reduce the environmental and health impact of its activities, that is to say undertake to limit the levels of exposure to radiation and chemical pollution both for the workers at the extraction sites and the local populations.

Extraction of uranium is the first step in the cycle of nuclear fuel and remains one of the most polluting.

CRIIRAD's observations since December 2003 show that AREVA and its subsidiaries have much to do in this area.

Parallel to the creation of health monitors it is indispensable that AREVA make engagements aimed at reducing the impacts. Engagements, for example, to:

--limit the release of radon 222, a **radioactive gas** carcinogenic to man. Well, dozens of air vents in underground mines discharge that gas directly into the atmosphere at Akokan (Niger).

--Urgently put into operation protective measures for storage of radioactive residues (limitation of the risks of releasing radioactive dust, limitation of erosion etc.) and guarantee the confinement over thousands of years of more than **30 million tons of radioactive residues** stored in the open air at Akokan (Niger)

--Limit the release of **radioactive dust** coming from the mines and stockpiles into the open air from piles of radioactive ore.

--Launch a campaign to recover radioactive materials from the mines and extraction plants from the uranium reused over decades by the population (contaminated scrap, **radioactive fallout**).

--Guarantee access to non-contaminated **water** after the end of operations. Uranium operations at Arlit and Akokan have led to extracting over 270 million cubic meters in a fossil layer. Putting the Imouraren deposit into operation will lead to extraction of 12 to 13 million cubic meters a year. AREVA recognizes that the underground layer will be dried out at the end of operation in about 40 years. In addition the operation will necessitate the excavation of close to 4 billion tons of rock and produce mountains of waste: mining slag heaped up in piles 40 meters high by 20 square kilometers and 245 million tons of long-lasting radioactive waste of which nobody knows how to guarantee the confinement.

--Limit the indirect impacts tied to the use of coal to furnish the energy at the uranium extraction complexes. In 2006 in Niger 85% of the electricity commercialized by SONICHAR was bought by SOMAIR and COMINAK. Establishing new uranium deposit operations is going to make the consumption of coal go from 160,000 tons to 400,000 tons in 2011. The population of Tchirozerine, a commune where a coal mine and a thermal power plant are implanted, complains of the atmospheric and water pollution.

NB: some of these points were developed in CRIIRAD report 08-02 of January 2008

4) CRIIRAD's reservations on AREVA's intentions CRIIRAD is all the more reserved on the creation of health monitoring stations since:

A/ AREVA continues to conceal the dosimetric and thus the health impact of its activities

Here are two examples

--At Akrit and Akokan the concentrations of uranium in certain shafts exceeds by a factor of 10 the standards of the WHO. This has been shown by CRIIRAD but also by official laboratories (Algade and IRSN) sponsored by AREVA to make checks. Nevertheless AREVA continues to claim in its 2009 press file: *Bacteriological analyses (monthly), radiological (half-yearly) and chemical (yearly) show the absence of contamination.*" (cf Annex 2)

--Certain groups of the populations around AREVA mines in Niger undergo radiation doses over the maximum admissible annual dose of 1 milliSievert. This datum comes from the IRSN, the official French institute of radioprotection. (cf Annex 3). The dosage limits are exceeded even though the IRSN calculation is based in large part on AREVA's own measurements and certain means of exposure are ignored (inhalation of radioactive dust, irradiation of reused scrap or slag, etc.) However, AREVA continues to state in its 2009 press file that *"the dosage limit is respected around the mines and neighboring towns of Arlit and Akokan."* (cf Annex4)

As a precondition to any “negotiation” with AREVA, CRIIRAD considers that the ONG should require from the enterprise that it start by recognizing the reality of the pollution it generates.

B/ Whereas it circulates much publicity, AREVA refuses to pass on factual information on the radiological impact of its activities

Here are two examples

--In May 2007 CRIIRAD addressed a letter to Mme Anne Lauvergeon, president of the AREVA group, informing her of the discovery of radioactive slag in **Niger** in front of the COMINAK hospital (radiation levels 100 times the normal) and requesting an inventory of the places contaminated by that type of waste at Arlit and Akokan. The waste has reportedly been removed from in front of the Akokan hospital (over 8 months after CRIIRAD’s letter) but Mme Lauvergeon has never sent CRIIRAD the requested documents (cf annex 5)

--In the same way AREVA and its subsidiary COMUF have never sent CRIIRAD documents describing the radiological situation around the former Mounana mines (**Gabon**) requested in March 2007 (cf Annex 6). Sending these documents has also been refused by the Gabonese authorities. That attitude is all the more shocking in that the preliminary measures taken in October 2007 by a local correspondent using material lent by CRIIRAD revealed strong residual contaminations.

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