

TECHNICAL SUMMARY – REMEDIATION OF HIGH PRIORITY HOTSPOTS IN WESTERN BALKANS

STEWART WILLIAMS - CHIEF TECHNICAL ADVISOR - 22 APRIL 2008 – WESTERN BALKANS

REGIONAL PROGRAMME –UNDP MONTENEGRO

COUNTRY : ALBANIA

SITE: Shkoder Municipality: Stockpile of Toxic Chemicals at Bajza railway station

ENVIRONMENTAL/HUMAN HEALTH PROBLEM

There is a concern that site contamination from a store of approx 250 tonnes of suspected hazardous chemicals (industrial /banned pesticides) held within a site building and possible (historic) spillage of pesticides stolen from train wagons could affect environmental and human health nearby including cross border impacts on the fish and bird life. There were reports of sheep deaths on the site as well as fish kills in nearby Lake Skadar.

INTERVENTION & WORKS

It was planned that the site be subject to a comprehensive environmental investigation to determine the full impacts of the stored materials and the historic spillage of pesticides. The EIA was to also characterize the stored chemicals and explore options for its packaging, storage/transport and destruction/disposal.

BASELINE AND EXISTING INFORMATION

There is no baseline data available for this site. The condition of the site (ie site contamination) and the degree to which the site or chemical stores is harming human health or the environment is therefore unknown. No previous studies have been provided and no quantification or characterization of the environmental impacts or stored chemicals has been provided.

SITE VISIT - 14 March 2008

"Chemicals store"

An inspection of the site building containing 250 tonnes of chemicals showed that there is potentially one type of industrial chemical present (sodium fluorosilicate (NaSiF₆)) along with the bags that contained it mixed in with scraps of leather waste. There was no visual evidence or odour usually associated with pesticide wastes. No packaging associated with pesticides (ie metal drums, plastic containers for liquids or other containers were) was present and no pesticide labels were apparent. The suspected sodium fluorosilicate has hardened into blocks of white powder and is present throughout the shed along with the plastic and paper packaging that previously contained it. The building has an apparent concrete floor, an intact roof and is mostly walled in. Though the nature of the waste present (appears water damaged) and water marks on the walls suggest that water can enter the building.

"Site Contamination"

Apart from the previous chemicals store there is no visual evidence of any other chemical/pesticide stores around the above mentioned building or around or on the tracks where pesticides were allegedly stolen and potentially spilt from a train in 1992/1993. The site was well grassed and visually some distance from Lake Skadar or other open water bodies. The rail site itself is fenced off without

ready access to the public and is not in close proximity to any apparent residences or other sensitive activities. No livestock were apparent on the site. There is no other visual indication of spilt pesticides.

In relation to the suspected contamination of the surrounding site from pesticide spillage from a parked train carriage in 1991/1992) the chemicals were stored on the train and that the site contamination could have occurred through spillage and scattering of some of the pesticides contained on the train. The recorded information of site contamination was due to the localized death of sheep grazing the site shortly after and the death of fish in Lake Skadar over the next few years.

RECOMMENDATIONS

Because of the unknown condition of the site a full scale EIA process, site assessment and development of a comprehensive remedial Action Plan in my opinion is not required at this stage. Rather it is recommended that a "first stage" preliminary site investigation be undertaken and following a review of information gathered the "second stage" actions can be undertaken.

The "first stage" should comprise;

- a) characterizing the storehouse chemicals, repackaging and temporary storage and recommendations for their treatment/disposal.
- (b) preliminary assessment of the soil, substrate and surface water in the immediate vicinity or close to **the storehouse and "impacted" train stabling area.**

The "second stage" (which would be based on what was found in the first stage) to include;

- (a) final treatment and/or disposal of the storehouse wastes (development and implementation of an Action Plan); and (if required);
- (b) environmental impact assessment, full scale site assessment and development of a remedial action plan etc (only if the findings in the preliminary site assessment support such an expanded response).