



## **NATO Bombing in Balkans Could Result in Widespread Ecological Disaster**

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### **NEWS RELEASE**

## **NATO Bombing in Balkans Could Result in Widespread Ecological Disaster, Environmental Group Warns**

### **NATO Must Immediately Evaluate Environmental and Health Consequences of Bombing**

**Takoma Park, Maryland, May 11, 1999:** The NATO bombing of petrochemical factories in Yugoslavia may result in ecological disaster, according to the Institute for Energy and Environmental Research (IEER), in Takoma Park, Maryland. The dangers arise both from the direct releases of toxic materials to the air, soil, and water as a result of the bombings, as well as from the indirect effects, such as the increased risk of nuclear power plant accidents.

“NATO has undertaken actions that could put large numbers of people at risk in Yugoslavia as well as in other countries,” said Dr. Arjun Makhijani, president of IEER. “It is imperative that NATO provide a full accounting of why these plants were bombed, and what assessments have been undertaken of their direct and indirect consequences for present and future generations.”

Among the industrial facilities that NATO has bombed is a combined petrochemical, fertilizer and polyvinyl chloride manufacturing complex in Pancevo, near Belgrade. Among the chemicals reportedly released as a result were [phosgene](#), [vinyl chloride monomer](#), [ethylene dichloride](#), and [ammonia](#). These are highly toxic chemicals used as feedstocks and intermediate materials in chemical manufacturing. IEER has no independent data on the types and amounts of chemicals present at Pancevo or other facilities that have been bombed. However, an examination of the uses of these materials in the chemical industry indicates that the claims made by Yugoslavian authorities that these materials were present at the bombed facilities should be taken seriously, rather than being dismissed out of hand.

“It appears that NATO actions have let loose deadly chemicals on the area. It should immediately make public all knowledge of the types and amounts of chemicals that were present.” said Dr. Makhijani. “The atrocities committed by the Yugoslavian government and military in Kosovo cannot be a justification for unleashing highly toxic materials on the population of the entire region. There is the potential that local concentrations could have been high enough to cause acute effects. Depending on the specific chemicals and their concentrations, these effects include damage to the lungs, eyes, liver, bones, skin, and nervous system, and even death.” IEER provided data from the New Jersey Department of Health on the hazards



presented by the four chemicals alleged by Yugoslav authorities to have been released (see attached hazard descriptions).

According to IEER, long-term damage to people much farther away exposed to lower concentrations of toxic materials is also possible. However, the nature and amount of the health and environmental damage cannot be assessed due to lack of information. Weather patterns during the bombings would be particularly important in determining whether and how much the people of neighboring countries were affected. Concentrations over neighboring countries, including NATO members, as well as countries where NATO troops are located, are unknown.

“NATO apparently did not conduct a proper analysis of the potential health and environmental consequences before beginning the bombing of chemical facilities,” said Hisham Zerriffi, Project Scientist at IEER. “If they did conduct one, they have neglected to inform the public of the possible dangers. It is urgent that NATO immediately make public all the information that it has and provide a thorough report to the public of the possible consequences of its strategy. The effects could be serious.”

Besides direct airborne contamination caused by the bombing, the products of combustion would likely include dioxins and furans, which may cause various kinds of health risks to exposed populations and to ecosystems. Extensive soil and water pollution has also been reported. This appears to have been from some combination of spills caused by the bombing and deliberate discharges of chemicals by Yugoslav authorities, reportedly to prevent even more extensive fires, explosions, and higher concentrations of materials in air.

Petroleum and other toxic chemicals in the Danube could affect the drinking water and food supply of people downstream. It also increases the risk of a severe nuclear power plant accident at the Kozluduy nuclear power plant in Bulgaria, which is downstream from Belgrade. There are six pressurized water nuclear reactors at the plant. All of them use Danube River water for their condenser cooling systems. Four of the reactors are of the older VVER-440/230 design and are regarded as particularly unsafe by international standards. They do not have secondary containment. Safety concerns led Germany to shut down four reactors of this design in 1990 at Greifswald in former East Germany.

“Condenser systems are used in nuclear power plants to condense the steam discharged from the turbines that drive the electricity generators. If condenser cooling water intakes become clogged or the pumps become unoperational due to the intake of petroleum or other chemicals, it would be necessary to shut down the reactor in about 30 minutes to prevent overheating and a severe accident,” explained Dr. Makhijani. “If the operators become confused and make mistakes, a severe accident is possible. In that case, a large radiological disaster is not out of the question, especially since four of the six reactors do not have secondary containment.”

NATO’s use of depleted uranium munitions in the Yugoslavia war could add to the controversy, especially since their use is again occurring in the context of chemical pollution, IEER noted. “The diverse reported symptoms that characterize Gulf War Syndrome are unlikely to have been caused by depleted uranium alone,” said Dr. Makhijani. “But the combination of contaminants, including potential synergistic effects, is worrisome.”



[Download the Attachment](#): Summary of the Uses and the Effects of the Chemicals Reportedly Present or Released as a Result of the NATO bombing of the Pancevo petrochemical complex in Yugoslavia