ORISSA MARINE RESOURCES CONSERVATION CONSORTIUM
Contact address: c/o Orissa Traditional Fish Workers' Union, Arjipalli, Ganjam District, Orissa

To:
Hon. Supreme Court Monitoring Committee on Hazardous Waste

Sub: Toxic hotspots along Orissa's coast

Dear Sirs,

The Orissa Marine Resources Conservation Consortium (OMRCC) is a collective of groups and individuals concerned with the conservation of the state's marine ecosystem. Our members comprise a wide diversity of groups, from fishermen's unions and fisheries management think groups to conservation organizations and those working on livelihood issues. We are concerned about the impact of certain industrial units on the health of the surrounding areas and the marine ecosystem, which provides sustenance to thousands directly and indirectly. The Orissa coast is also one of the largest breeding and nesting grounds for the endangered olive Ridley sea turtle, and the continued release of effluents into the marine ecosystem is bound to affect the species at some point.

We have two specific concerns with regard to hazardous wastes on the Orissa coast:
1. The chlor-alkali factory of Jayshree Chemicals at Ganjam.
2. The IFFCO (formerly Oswal) Fertiliser factory at Paradip

Jayshree Chemicals (Pvt.) Ltd., a chlor-alkali factory, has been in operation since 1967, is currently proposing an expansion by 100 tons and a shift in technology – mercury cell to membrane cell technology. Jayshree Chemicals is located at Ganjam NAC (Notified Area Council) with a population of approx 15,000 people. The unit produces caustic soda, chlorine and hydrochloric acid. After many years of protests, the company is reportedly changing over from mercury cell to membrane cell technology, which is expected to reduce the impact of mercury pollution. The conversion is slated to follow a production expansion of 100 tonnes.

However, there are several unresolved issues with regard to the unit that need to be addressed before any expansion or continued production goes ahead:
1. Committees set up by the Government of Orissa over different points of time, the first being in 1985, have confirmed the presence of mercury in the effluents drained into the Rushikulya river.
2. A study by the Council of Professional Social Workers (CPSW) Bhubaneshwar has reported in the past that the Rushikulya river is polluted by a number of effluents from various industries. However, the most hazardous of the pollutants in the Rushikulya come from the chlor-alkali factory of Jayshree Chemicals.
3. Tests conducted by a research team from the Department of Botany, Benaras Hindu University reported the presence of mercury in fish, trees and river water, from effluents traced to Jayshree Chemicals.
4. Mercury concentration in sediment samples taken from the Rushikulya estuary ranged from 1.6 to 192 mg/kg acc to a study conducted by Panda et al in 1990. The concentration of mercury was highest in samples collected from the effluent discharge areas.
5. The Orissa State Pollution Control Board has repeatedly detected and highlighted the presence of mercury in the effluents of the factory.

6. In their last report in 2004, the Central Empowered Committee of the Supreme Court directed the government of Orissa to instruct Jayshree Chemicals to stop production during the mass nesting period of the endangered olive Ridley sea turtles. This has never been done to date.
7. Studies and anecdotal evidence indicate a decline in fish catch, besides deposits of heavy metals and mercury in the biotic community at the Rushikulya estuary.
8. To facilitate the expansion of the plant, a Rapid EIA has been prepared. However, there are several glaring inadequacies/faults with this report.

a) The report has not factored in problems due to residual mercury evaporation and methods to prevent the same.
b) The EIA also makes no comment on the exploitation of groundwater that would be required to sustain the factory expansion. The water source from where the factory currently meets its requirements also meets the needs of the people of Ganjam and six neighbouring gram panchayats.
c) There does not seem to be a disaster management plan in place.
d) The question of how the plant will meet its additional water requirements post expansion has been ignored. There is already a water scarcity in the region and the unit currently withdraws water from the same source that meets the requirements of local residents.
e) The report does not take account of the fact that the Rushikulya beaches are one of the last remaining nesting grounds for the endangered olive Ridley sea turtles. The offshore waters are important for not only the turtles but also thousands of fishing families that depend on the health and productivity of the riverine, estuary and offshore marine ecosystem.

9. The biggest problem with Jayshree's 'conversion and expansion' plans as released to the public is that under the guise of undertaking an 'eco-friendly' improvement in the industry, the company is actually seeking to continue its existing outdated polluting technology. The Executive Summary of the REIA clearly states that the conversion of the existing mercury cell process to membrane cell technology will only take place following the 100 ton expansion, and is expected to be completed by 2010. This is unacceptable. Conversion from the dangerous and highly polluting mercury cell technology must be given precedence before any expansion in capacity.
10. The company also needs to be held responsible for the historic pollution it has caused in the area and efforts at a clean up initiated, at the company's cost.
11. A study by Kannan K, Ramu K, Kajiwara N, Sinha RK, Tanabe S[1] has detected the presence of Organochlorine pesticides, polychlorinated biphenyls, and polybrominated diphenyl ethers in the rare Irrawaddy dolphins of the Chilika Lake. There is a high likelihood that pollution from Jayshree Chemicals are at least partly responsible.

2. IFFCO fertilizer plant, Paradip (formerly Oswal)

In 2000, Oswal Fertilizers was set up at Paradip, on the banks of the Atharabanki creek, which joins the river Mahanadi. The company produces Di-Ammonium-Phosphatic (DAP) Fertilizer and Sulphuric and Phosphoric Acid and is the world's largest DAP plant, producing around 2 million tones of the fertiliser a year.
The MoEF authorization provided to the company was based on the premise that there would be no discharge into the sea/waterways. However, right from the start, the company has been indiscriminately releasing its toxic effluents into the sea seriously affecting the environment, health and livelihood of coastal communities of fishermen and coastal agricultural farmers.

[1] Wadsworth Center, New York State Department of Health and Department of Environmental Health and Toxicology, State University of New York at Albany, Empire State Plaza, P.O. Box 509, Albany, New York 12201-0509, USA. kkannan@wadsworth.org

The factory has been discharging effluents like phosphor-gypsum, which contains radioactive radium 226, radon and fluorine into the Mahanadi.

Gas leakages and venting are a reality for the community. Breathlessness and respiratory disorders are common amongst children in this area. Residents from the villages of Rajnagar, Sathubhaya and Tantiapal of Bhitarkanika have complained that whenever the unit discharges its effluents into the Mahanadi, the water becomes discoloured. Dead fish are found in the river and sometimes as far away as Barunai and Sathubhaya villages, inside the limits of the Gahirmatha Marine Sanctuary, nesting ground for the endangered olive Ridley sea turtle.

A thick crust of phosphors-gypsum has settled down on the riverbed near the mouth, preventing the seasonal migration of Hilsa fish into the river for the past two years. Fishermen from the fishing villages located near the Mahanadi river mouth have been complaining since the last 3 years about a drastic fall in fish catch due to pollution from this unit.

In January 2005, the Orissa Pollution Control Board (OPCB) had ordered the closure of Oswal Fertilizers for failure to comply with pollution norms. This decision was then superseded by the Central Pollution Control Board, which has given permission to the polluting unit to continue to operate with its di-ammonium-phosphate unit.

Phosphor-gypsum is released regularly into the surrounding waters. The unit has inadequate storage for the gypsum it produces as a by-product. It has been regularly releasing gypsum into the surrounding waters in order to empty its ponds. If records would be examined, from the production and sale data for the last four years, it can easily be ascertained how much gypsum has been generated so far, what is in stock and what happened to the rest.

We request the SCMC to issue suitable directions to the Orissa state government and Pollution Control Board to ensure that both these industries follow existing pollution control laws and make reparations for their past and ongoing violations and the impacts these have had on the ecology and health of the community.

Sincerely,

Mangaraj Panda, Convenor, OMRCC and Secretary, United Artists Association

K. Aleya, General Secretary, Orissa Traditional Fish Workers Union

Harekrishna Debnath, Chairperson, National Fishworkers Federation

Aarthi Sridhar, Ashoka Trust for Research in Ecology and the Environment

Ashish Fernandes, Greenpeace India