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• SANTA BARBARA • SANTA CRUZ

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Ministero dell'Ambiente Direzione per la Salvaguardia Ambientale del Ministero dell'Ambiente e della Tutela del Territorio e del Mare - Divisione III Attenzione: Concessione d71 FR-NP e d149 DR-NP Northern Petroleum Via Cristoforo Colombo, 44 00147 - Roma

e p.c. : Ministero per i Beni e le Attivita Culturali Direzione Generale per la Qualita e la Tutela del Paesaggio e l'Arte Contemporanea Via San Michele, 22 00153 - Roma

Dear Ministers:

I am a professor with a Ph.D. in physics and I teach in the medical school at the University of California. I am writing you to express my concern about the proposed seismic exploration and subsequent drilling in the Adriatic. In addition to the inevitable pollution that will result from these activities, I am particularly concerned about the known effects of low-frequency acoustics (LFA) generated by air cannons. These acoustic pulses are extensively used in seismic prospecting and have been known to kill dolphins and whales by disorienting and stranding them.

For example, the December stranding and death of seven Sperm whales in the southern Adriatic was likely due to seismic surveying. Similarly, a 2006 stranding of 400 dolphins was caused by low-frequency naval sonar. Many other cases of whale and dolphin deaths worldwide have recently arisen since deployment of LFA. The evidence for LFA induced killing of marine mammals is conclusive, having been published and accepted by The Scientific Committee of the International Whaling Commission.

Both military and seismic prospecting LFA systems typically operate at intensities greater than 200 decibels. This is a very intense and deadly level for marine life. Due to the shallow, confined topography of the Adriatic, acoustic waves will not only travel throughout the sea, but can be focused and further intensified. Many territories worldwide have forbidden LFA and I am writing to urge you to deny drilling permits d149 DR-NP and d71 FR-NP, as filed to your office by London-based Northern Petroleum, PLC.

The subsequent permanent oil wells will be clearly visible from shore and will employ toxic chemicals and generate large quantities of waste water that will have to be transported and treated onshore. Not only will these operations continuously endanger wildlife and generate air and water pollution, they represent a real risk for a catastrophic event (such as the BP well blowout in the Gulf of Mexico) that would devastate the entire Adriatic. Due to the magnitude of damage to wildlife and the environment, I further urge you to consider adopting the directive of the European

Commissioner for energy (Gunher Oettinger), who on July 7th 2010, proposed a moratorium on all deep-water drilling throughout Europe.

From what I understand the petroleum is of low quality (requiring an inefficient and polluting refinement process) and the reserves (53 billion barrels) constitute *less than one week* of China's oil consumption. It would be irresponsible to sacrifice the environment by permitting oil exploration and extraction in the Adriatic, and allow the few in corporations to make a quick profit at the expense of the natural environment that is clearly better suited for tourism, residences, or agriculture.

Sincerely,

Tom Chou Professor of Biomathematics and Mathematics David Geffen School of Medicine University of California, Los Angeles Los Angeles, CA 90095-1766