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| <b>MS Word Export To Multiple PDF Files Software - Please purchase<br/>license.PROJECT STATUS REPORT FORM</b>   |   |
| <b>Project Number:</b> CLM-06-16  | <b>Task Force:</b> Coal Mining                      |
| <b>Title of Project:</b> Technical Improvement for Control of Coalfield Fires   |   |
| <b>Lead Partner Country:</b> China (as Coalfield Fire Extinguishing Department of Xinjiang, China)  |   |
| <b>Participating Partner Countries and Organizations:</b> <ul style="list-style-type: none"> <li>• <b>China-</b> The Coalfield Fire Extinguishing Department of Xinjiang, China</li> <li>• <b>USA-</b> Zonge Engineering and Research Organization, Inc.</li> <li>• <b>China-</b> Jiangsu University</li> </ul>   |   |
| <b>Project Location</b> (Country, State/Province, City): China, Xinjiang, Urumqi  |   |
| <b>Project Manager Information</b><br><b>Name:</b> Mr. Zhongyong Cai<br><b>Organization:</b> The Coalfield Fire Extinguishing Department of Xinjiang, China<br><b>Address:</b> 318 Nanhu Road E, Urumqi, Xinjiang, P.R. China 830063<br><b>Phone:</b> 086-991-4663204<br><b>Fax:</b> 086-991-4663204<br><b>Email:</b> wwpczy@163.net  |   |
| <b>Project Start Date :</b> January 2008  | <b>Date of Project Status Update :</b> October 2009 |
| <b>Actions Since Last Update:</b> <ol style="list-style-type: none"> <li>1. Kueraken Coal Fire Area in Baicheng, Songshutou Coal Fire Area in Urumqi, and Queergou Coal Fire Area in Hutubi, Xinjiang Uighur Autonomous Region, P.R. China had been selected as the project sites, and were investigated.</li> <li>2. The topographic and geologic surveys in Songshutou and Queergou Coal Fire Areas have been conducted for providing data to modeling the fire areas.</li> <li>3. The technical discussion and exchange between Jiangsu University and the Coalfield Fire Extinguishing Department of Xinjiang were undertaken specially for set up a wireless transmittal network for monitoring the coal fire.</li> <li>4. The collection of temperature data and wireless transmittal test were implemented in Songshutou Coal Fire Area.</li> <li>5. The magnetoelectric device GDP32II manufactured by US Zonge Engineering and Research Organization, Inc. was reviewed in its Chinese Branch in September 2008.</li> <li>6. 3-D geographic information system software Skyline TerraSuite and digital mine software Surpac were trained.</li> </ol> |   |



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| <p><b>Deliverables Since Last Update:</b></p> <ul style="list-style-type: none"> <li>• <i>Project Sites Investigation Report</i></li> <li>• <i>Exploration Report on Songshutou Coal Fire Area and Queergou Coal Fire Area</i></li> <li>• <i>Experimental Report on Wireless Transmittal Network-based Technology to Monitor Coal Fire Temperature</i></li> <li>• <i>The topographic and geologic database for 3-D modeling the coal fire areas</i></li> </ul>  |   |
| <p><b>Milestones Reached:</b></p> <p>The project has formally been initiated its phase I, a wireless transmittal network-based technology to monitor coal fire temperature has been established.</p> <p><b>Next Steps:</b></p> <ul style="list-style-type: none"> <li>• Geophysical detection of underground coal fire using magnetoelectric method.</li> <li>• Establishment of a wireless transmittal network-based technology to monitor coal fire gas.</li> <li>• Integrated interpolation and analysis of the detected data and monitored data.</li> </ul>   |   |
| <p><b>Proposed Project End Date:</b> June 2011</p>  | <p><b>Already Complete:</b> <input type="checkbox"/>Yes <input checked="" type="checkbox"/>No</p> |
| <p><b>Other Information:</b></p> <p>A study, “Spontaneous Coal Seam Fires: The Chinese Perspective,” by Guan Haiyan of the Beijing Remote Sensing Corporation (BRSC), Shenhua Group, Beijing, P.R. China, published in ERSEC Ecological Book Series – 4, 2007, states that as much as 20 million tons of coal are burned away in Chinese coal fires each year; and with them another 200 million tons are lost for mining due to the fires’ aftereffects. Measurements for the North China Coal Fire Belt yielded a staggering amount of gas emissions per year: 490,200 tons of carbon monoxide, 514,700 tons of sulfur dioxide, 300,000 tons of nitrogen dioxide, 112,000 tons of dust, as well as other harmful gases such as large quantities of the greenhouse gas carbon dioxide, and hydrogen sulfide. Along with these emissions, thermal heat in the order of <math>3.09 \times 10^{17}</math> J is given off to the atmosphere. If the coalfield fires can be reduced or extinguished, less greenhouse gases will be emitted into the atmosphere. The initial costs for the project were self-financed by the Coalfield Fire Extinguishing Department of Xinjiang and Jiangsu University.</p> |   |