



Environmental Monitoring Report

Project Number: 34097
July 2006

PRC: SHANXI ROAD DEVELOPMENT II PROJECT Implementation of Environmental Protection Measures BIANNUAL REPORT (2006.1-2006.6)

Prepared by Shanxi Hou-yu Expressway Construction Co. Ltd
Shanxi, People's Republic of China

For Shanxi Hou-yu Expressway Construction Co. Ltd.

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Shanxi Road Development Project II

Implementation of Environmental Protection Measures

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I. Project Progress

The progress of Shanxi Houma-Yumenkou Expressway Project is as follows: the subgrade works of main line, bridges works, culverts works and underpasses works had been completed, at present the pavement works has been completed 50% of quantities, for the short tower cable stayed spans of Longmen Yellow River Bridge, all segments had been completed cantilever casting, and for double tower cable stayed spans, 90% of segments had been completed, the installation of all 30m T beams had been completed, and 85% of 50m T beams, the remained work of cast-in-situ segments of box girder and installation of 50m T beams will be finished in the end of July.(See all the details in the Project Progress Quarter Report dated June 30, 2006)

II. Management and Training of Environment Protection

Since January 2006, the contractors of the pavement works and house building works for toll stations and service area, has started to construct. According to the requirements of environment protection management, SHEC specially assembled the related personnel taking charge of environment protection in the contractors' unit, to issue the Environment Protection Management Method for Shanxi Houma-Yumenkou Expressway Project to them and learn it. Due to construction characteristic of the pavement works and house building works, mainly emphasized on noise control, spraying water to avoid dusting at the time of material transport, dust prevent control when mixing of lime and soil, the management of discarding of life waste, dumping of life sewage and waste water producing by construction activities, and the contractors' and the consulting units' duties and obligations.

III. Environmental Monitoring

The 1st and the 2nd quarter report on Environment Monitoring of 2006 were submitted to ADB, in which two monitoring components: NO₂ and CO were increased under item of air quality monitoring, followed ADB Mission's suggestion on November 2005.

The monitoring results showed that the values of TSP in the first and the second quarter were over the standards by 0.13-0.33 times, but they were

close to the base values and maintained a stabilized level; without overpassing the standards, the values of NO₂ and CO conformed to the requirements; the monitoring results of water quality at upstream and downstream of Longmen Yellow River Bridge were not over the standards and there was no obvious difference; and the values of noise on the construction site were lower the noise limit and met the requirements of the standards on construction site. (The detailed monitoring datum was shown in No.7 and No.8 Monitoring Report.)

IV. Protection of the Wetland Nature Reserve and Grey Crane

The work of Hou-Yu Expressway Project Monitoring Station of Yuncheng Wetland Nature Reserve in 2005-2006 started on October 14, 2005 and ended on April 1, 2006, and mainly included:

4.1 Strengthen Propaganda of Wetland Protection

Set up warning board, placarded slogan on the project site and organized the propaganda concerning birds' protection, carried on environment protection activity by the means of the media and publicizing cars, and distributed more than 5000 pieces of handbills to the villagers in Hejin section of the Nature Reserve.

4.2 Daily Monitoring and Observation

Bird observation was operated once ten days in the period of monitoring.

4.3 Food Enrichment

Casting food was started from October 14, 2005, once with 250kg five days, the total of food cast is 24 times throughout the monitoring period, the main food cast is corn.

It was found that there was no obvious change in the quantities of Gray crane, the types of others birds are more than 2004, especially bustard, goose and duck.

V. Implementation of Environmental Protection Measures on Site

Since the beginning of this year, the pavement works and the house

building works have been constructed, the activities in E6 and E7 were focus on bridge deck, cast-in-situ box girder and installation of T beams, therefore the emphasis of environment protection work tuned to restore of temporary land used, borrow pit and waste pit, clearing of Yellow River course around piers, up to now, all the temporary facilities of subgrade contractors were removed from construction site, and all the restore work were completed.

The contractors' camps and official areas were constructed according to the requirements of environment management methods, life rubbish, sewage and waste water were treated centrally, and cleared away termly.

To keep a clean surrounding, underground comminuting and mixing method was adopted in mixing plant, it avoided effectively dusting.

All the machinery of pavement must stop working from 10 p.m. to 6 a.m., in order to ensure the noise at night wasn't over than the standards.

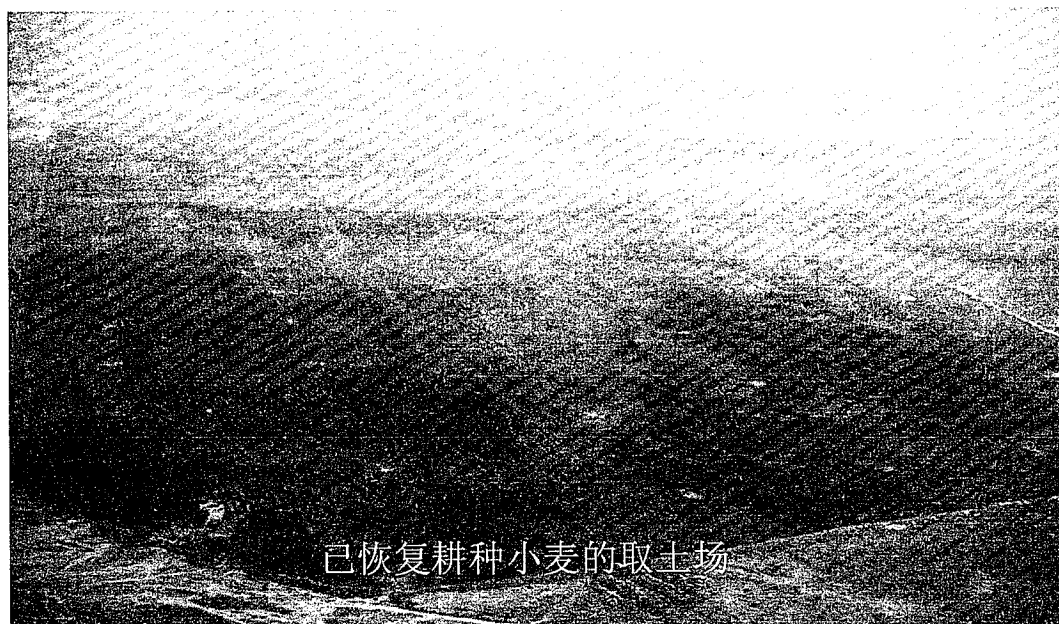
VI. Inspection and Supervision

SHEC inspected the pavement site, house building site and Yellow River construction site respectively on March and May of this year, the phenomenon which was found in the inspection and wasn't in line with the requirements of environment protection, was asked to correct, and the results of inspection were noticed to all contractors and supervision units.

VII. Conclusions

The results of environment monitoring in the first half year are similar to those in former years, the monitoring of wetland and grey crane was completed smoothly, all the environment protection work in 2005-2006 went well, and met the requirements of Environment Evaluation Report and ADB Loan Agreement. Up to now, large scale earth works was completed, so the sensible problems on environment protection such as earth borrow, earth waste, dust blowing, and construction in river course became no more highlighted, the environment protection work in second half year will be focused on implementation of environment protection measures to temporary camping and noise control on the pavement site.

VIII. Photos Concerning Environment Protection



The Borrow Pit Restored to Plant Wheat



The Leveled Borrow Pit in Liu Jian Village of Xinjiang County



The Borrow Pit Restored to Cultivate in Fuyou Village of Xinjiang County



The Borrow Pit Restored to Cultivate in Huayu of Jishan County



The Restoring Precast Yard in Jishan County



Mixing Plant with a Good Control