Initial Section of

Chuzhou-Nanjing Intercity Railway Project

with World Bank Loan

Audit Report on Environment, Health and Safety

Auditor: China Railway SIYUAN Survey and Design Group Co., Ltd.

Time: April 2019

Contents

- **Executive summary**

-The EHS audit covers two worksites to be commenced firstly in the Chuzhou-Nanjing Intercity Railway.

(1)Worksite 1: Qingliuhe Grand Bridge DK13+880~DK14+580, the Contractor is China Railway 12 Bureau Group Co., Ltd., and the construction supervision unit is Jiangsu Jianke Engineering Consulting Co., Ltd..

(2) Worksite 2: Xiangguan Town Grand Bridge DK34+995-DK36+670, the Contractor is China Tiesiju Civil Engineering Group, and the Supervisor is the Consortium of Shanghai Metro Consulting Supervision Technology Co., Ltd. and ARTS Engineering Consulting Co., Ltd.

Wantong Intercity Railway Co., Ltd. (SPV1) is responsible for the Phase I project of Chuzhou Section of Chuzhou-Nanjing Intercity Railway.

-Environmental impact assessment on Chuzhou Section of the Project has been completed in 2016, and the reply of approval of Chuzhou Environmental Protection Bureau (CH [2017] No. 33) has been received in Jan. 2017, as well as the land use Preliminary Review opinion of the Department of Land and Resources of Anhui Province (WGTZH [2017] No. 31), and the planning site selection opinion of the Department of Housing and Urban-Rural Development of Anhui (XZ No. 340000201600482). The project construction meets the domestic commencement conditions.

-The two contractors have implemented requirements of laws and regulations of the State, Anhui Province, and Chuzhou City and also met the environmental protection policy of the World Bank in the construction process.

-Corresponding mitigation measures have been taken by the two construction sites in terms of sewage treatment, dust control, construction noise and vibration control, solid waste, and soil and water conservation, etc., to minimize the environmental impacts during the construction.

-The two contractors have a sound occupational health and safety system in place as a guarantee, which can effectively control and solve the health and safety issues in the construction process.

● 1 Project nature

● 1.1 Background

Chuzhou-Nanjing Intercity Railway, located in Chuzhou and Nanjing, passes through Chuzhou urban area, Suzhou-Chuzhou Industrial Park, Lai'an County and Pukou District of Nanjing. The total length of the Line is about 54.4 km, with 16 stations, including three underground stations and 13 elevated stations. In the whole line, there are one depot and one stabling yard, a depot in the northern area of Xiangguan Town, a stabling yard at the starting point between Hongwu Road and Beijing-Shanghai High-speed Railway; two main substations near the Vocational and Technical College Station and Xiangguan Town Station; one control center in the southeast of the intersection of Huizhou Road and Yangzi Road.

The whole line is divided into Chuzhou Section and Nanjing Section. The Chuzhou Section includes two parts: Phase I (DK13+075~DK46+255) and Phase II (DK0+000~DK13+075). The Chuzhou Section is 46.255 km long, including 5.648 km underground line, 40.448 km elevated line and 0.159 km ground line. There are 14 stations, including two underground stations and 12 elevated stations. One depot and one stabling yard, two main substations and one control center are all located in this Section; the Nanjing Section is about 8.145 km long, including 2.14 km underground line, 5.93 km elevated line and 0.075 km ground line; there are two stations, including one underground station and one elevated station.

● 1.2 Audit scope

The EHS audit covers two worksites to be commenced firstly in the Chuzhou-Nanjing Intercity Railway.

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● 1.3 Auditing methods and standards

1.3.1 Main methods

The main methods adopted in this audit include on-site visits, access to relevant information, collection of relevant monitoring data and necessary environmental quality monitoring.

1.3.2 Major laws and regulations

(1) *Environmental Protection Law of the People's Republic of China* (2015 revision)

(2) *Regulations of Anhui Province on the Environmental Protection* (2018 revision) (2018 revision)

(3) *Regulations of Anhui Province on the Prevention and Control of Atmospheric Pollution* (2015)

(4) Regulations on Prevention and Control of Dust Pollution in Construction of Anhui Province (JZH [2014] No.932)

(5) *Notice of the People's Government of Chuzhou on Issuing the Implementation Scheme of the Atmospheric Pollution Prevention and Control Plan of Chuzhou* (CZ [2014] No.21)

(6) *Measures for the Administration of Urban Construction Waste Disposal of Chuzhou* (CZ [2014] No.4)

1.3.3 Major standards for implementation

The major standards involved in this audit:

(1) Noise

During the construction period, the noise standards shall comply with the *Emission Standard of Environment Noise for Boundary of Construction Site* (GB12523-2011).

Table 1-1 *Emission Limits of Environment Noise for Boundary of Construction Site* Unit: dB(A)

In the daytime (06:00-22:00)	At night (22:00-06:00 the next day)
70	55

The maximum sound level at night should not exceed the limit value by more than 15 dB(A).

(2) Ambient air

During the construction period, the air pollutants emission shall comply with the Class II standard of the *Integrated Emission Standards for Atmospheric Pollutants* (GB16397-1996) and the concentration limits for the monitoring of fugitive emissions in Table 2.

Table 1-2 Emission Limits of Atmospheric Pollutants (Unit: mg/m^3)

Pollution factor	Concentration limits
SO_2	0.40
NO_X	0.12
Particulate matter	1.0

(3) The Class III standard of *Integrated Wastewater Discharge Standard* (GB8978-1996).

Table 1-3 Integrated Wastewater Discharge Standard (Unit: mg/L, excluding pH)

Pollution factor	Concentration limits
pH	6～9
SS	400
BOD_5	300
COD	500
Ammonia nitrogen	25
Petroleum	30

*Ammonia nitrogen standard shall comply with the Standards for the Quality of Sewage Discharged to Urban Sewers (GB/T31962-2015).

● 1.4 Site condition

The construction site of Qingliuhe Grand Bridge is located on the side of Longpan Avenue and the construction site of Xiangguan Town Grand Bridge is located in the center of G104. At present, the two construction sites have been enclosed, for the pile foundation construction and platform construction.

- **2 Project overview**

- **2.1 Construction process and relevant information**

The piers of Qingliuhe Grand Bridge and Xiangguan Grand Town Bridge are designed with Y-shaped piers. Bored pile foundation is adopted. The construction process of bored cast-in-place pile is as follows: (1) Pile foundation positioning and pile casing embedding. After lofting, determine the position of the pile foundation and embed the pile casings. (2) Drilling and clearing. After drilling hole, the bottom of the hole is thoroughly cleaned up to remove the existing silt or debris. (3) Making and placing steel reinforcement cage (4) Concreting.

The civil works of Chuzhou-Nanjing Intercity Railway commenced since 1 February 2019. Now at two worksites, the hole drilling and pile construction of partial piers have been completed.

2.2 Site selection and surrounding environment

worksite 1 is located on the south side of Longpan Avenue (118.3826°E, 32.2782°N), surrounded mainly with roads (Longpan Avenue), vegetable plots and urban green space. The construction site is arranged with guard room, office, temporary accommodation board room for workers (about 30 people), steel processing shed, etc.

Worksite 2 is located in the center of G104 (118.5454 °E, 32.2762°N), surrounded mainly by road (G104), a few factories, residential buildings and construction land under development. In the construction site, there are mainly guard room and offices. All the workers (45 persons) rent and live in the surrounding houses.

The distribution of environmentally sensitive targets around worksite 1 and 2 is as follows:

Table 2-1 Distribution of Sensitive Objectives around the Construction Site

S/N	Position	Sensitive points	Nearest distance (m)
Worksite 1	North side	Geyoufang Village	95
Worksite 1	South side	River	150
Worksite 2	East side	Part of National Highway 104 residence in Lai'an County	65
Worksite 2	West Side	Xiangguan Village	166

- **2.3 Environmental problems left around the site**

According to on-site survey and visits, there are no environmental problems left around the two construction sites at present.

3. Environment Health Safety (EHS)

● 3.1 EHS policy and regulations

The two contractors which first started construction, China Tiesiju Civil Engineering Group and China Railway 12 Bureau Group Co., Ltd., have both obtained ISO14001 Environmental Management System Certification and ISO45001 Occupational Health and Safety Management System Certification. The EHS policies and regulations all comply with relevant requirements of ISO14001 and ISO45001.

1. Policy

(1) Complying with the laws, regulations and other relevant provisions of the state, Anhui and Chuzhou on environment, safety and health;

(2) Introducing environmental, safety and health concepts to suppliers, cooperative companies and other institutions, and encouraging them to comply with regulations and requirements;

(3) Regular environmental and health improvement reviews

(4) Strengthening staff training, and improving the environment and safety awareness of all staff, and making sure that everyone participates in environmental activities, and everyone carries out safe production

(5) Continuously improving environment, safety and health performance, and continuously enhancing the working and living environment of employees; (6) Saving energy, preventing pollution and preventing major accidents;

(7) Controlling the discharge of pollutants to fully meet the standards, striving to achieve waste reduction, reuse and recycling;

(8) This EHS policy is documented, communicated to all employees and accessible to the public.

2. Regulations

(1) Environmental protection mainly includes environmental protection production rules and regulations; production operation rules; environmental protection emergency plan; environmental protection training records; implementation of environmental protection investment funds; environmental protection acceptance certificate.

(2) Health mainly includes health production rules and regulations, health production operation rules; health emergency plan; health training records; implementation of health investment funds; health acceptance certificate.

(3) Safety mainly includes safety production rules and regulations; safety production operation rules; safety emergency plan; safety training records; certification of special operators (electricians and welders, etc.); implementation of safety investment funds; fire acceptance certificate, etc.

● 3.2 Administrative organization

The Contractor set up the Safety and Quality Department (hereinafter referred to as the

SQ Department) to manage the environmental health and safety. At the same time, the vice general manager is responsible for the specific work of the SQ Department. The deputy project manager is responsible for the safety and health management of the site.

- **3.3 Risk emergency management plan**

Both contractors have formulated on-site risk emergency management plans. The main steps are: identifying construction risk factors, determining the corresponding accident types, and formulating special prevention and control measures accordingly to ensure construction safety.

The specific contents of the plan are as follows:

(1) Establishment of a risk monitoring ledger

At the commencement of the project, all functional departments of the two contractors have established risk monitoring ledgers, which should specify the location of potential hazards, the degree of risk hazards, pre-control measures, responsible persons at all levels, update records and other relevant information. For major hazards, there should be risk assessment summaries, special safety construction plans attached, and publicized to all employees involved in the construction.

(2) Strict implementation of various risk management systems

The risk management system has been examined and conforms to the actual situation of the construction site.

(3) Establishment of three-level risk management mechanism

A three-level risk management mechanism is established, namely, the Contractor, site command headquarter, construction and supervision. At each level, the objects of concern are different: the Contractor pays attention to extremely high-risk objects; site command headquarter performs company duties in site management, paying attention to highly and extremely high-risk objects, and carries out control and management of high-risk objects in accordance with the company's risk management decision-making intention; the supervision and construction units manage the site in parallel, participating in the risk management throughout the whole process, including paying attention to extremely high-risk, high-risk, moderate and low risk, and acting as the information hub in the management chain.

(4) Effective work on risk source

The supervision unit participates in risk control and management throughout the whole process, makes detailed records of the construction process, collects real information, timely prevents and solves problems if found, and reports the real information to the site command headquarter in the first time.

(5) Establishment of a mechanism for examining and approving plans before implementation in high-risk section

For high-risk construction sites, the principle of examining and approving plans before implementation should be implemented. All high-risk links involved in these two worksites are preceded by special plans. The chief supervision engineer presides over the site and the design unit also participates. First, they should study and formulate the scientific and reasonable plan, and then implement it on the site.

(6) Establishment of leadership duty system in high-risk worksites.

The leadership of the construction unit is required to take responsibility over sub-sites and lead the shift work, playing a positive role in standardizing the site order and safety control.

(7) Residual risk assessment of high-risk worksites

After technical measures processing on the high-risk construction sites, the residual risk shall be assessed. If the risk can be accepted after the assessment, the next process construction shall be arranged. If the risk is not acceptable after assessment, remedial action will be taken.

- **3.4 Employee training and management plan**

All employees and field personnel participated in the EHS policy training organized by the company, mainly in the form of bulletin boards, exhibitions, special lectures and conference communications.

The training contents mainly include the following parts:

① Basic environmental protection, safety and health awareness training for all employees, to train relevant management policies;

②Safety and health awareness training for all employees

③On-the-job training for personnel involved in relevant environment-sensitive work, including environmental protection, safety and health, etc.

④Training on objectives, methods and implementation methods of environmental and social management plans for all employees of the Contractors.

- **3.5 EHS Exchange Mechanism**

1. Internal communication

(1) Regular documents, e-mails, conference minutes and document progress reports, etc.

(2) Summary and arrangement of monthly/quarterly reports, etc. circulated through the daily/weekly/monthly reports by the site - SQ Department - leaders in charge inside the company.

2. External communication

While internal report level by level on site, report relevant information to Wantong Company (SPV1) and project office (Chuzhou Intercity Railway Office) in the form of weekly and monthly reports.

- **4 Contractor's Environmental Performance**

- **4.1 Domestic/Local Management Requirements**

The requirements for environmental protection and management of Chuzhou are included in Section 1.3.2, which should comply with current domestic standards for noise emission, discharges of sewage and dust emission during construction.

- **4.2 Applicable World Bank Policy**

The World Bank and International Finance Corporation's policies on environmental protection and management include: *The Environmental, Health, and Safety (EHS) Guidelines*, *General EHS Guidelines for Water and Sanitation*, *General EHS Guidelines for Waste Management Facilities* and *Performance Standards on Social and Environmental Sustainability*.

4.3 Pollutant Discharge and Treatment

4.3.1 Sewage Discharge and Treatment

1. Sewage discharge

The main sewage generated at the Worksite 1 and 2 includes muddy water from cast-in-situ bored piles, water for dust removal and wastewater for washing vehicle and equipment. Due to the temporary accommodation and canteens for 40 construction workers at the Worksite 1, there is a small amount of domestic sewage and the main pollutants are COD and BOD_5.

2. Main treatment measures:

(1) Now it is in the initial stages of the construction, the number of bored holes in the bridges of the two worksites is small, and the muddy water from cast-in-situ bored piles is transported by slag dump trucks to the designated disposal area for treatment, which will not harm the environment;

(2) Water for dust removal and wastewater for washing vehicle and equipment is reused after sedimentation in the tertiary sedimentation tank on site.

(3) There are temporary toilets and septic tanks at the Worksite 1. After the domestic sewage of the construction workers is treated by the septic tank, it will be discharged into the municipal sewage pipe network of Longpan Avenue, which will not harm the environment.

(4) There is a river about 150 meters to the south boundary of Worksite 1. The sewage does not enter the river during the construction of the project, and will not pollute it.

4.3.2 Impact on Ambient Air and Its Control Measures

1. Impact on ambient air

The air pollution at the construction site mainly comes from construction machinery, transportation vehicles, excavation and backfilling during construction, spoil, stacking, loading, unloading and transport of powdery building materials. The main pollutant is fugitive dust.

The canteen at Worksite 1 applies natural gas, electricity and other clean energy.

2. The main control measures taken are:

(1) A dust control net to cover temporary piled soil.

(2) Water spraying vehicle to remove dust twice a day in the morning and evening.

(3) An automatic sprinkler system installed on the top of the construction enclosure to cover the entire construction site and spray dust during construction.

(4) Timely sprinkle with recycled water in the sedimentation tank in the intermediate stage.

(5) After adopting the above various dust removal measures, the dust generated from the construction of Worksite 1 and 2 will not cause damage to the surrounding environment (Geyoufang Village, Residence near the old 104 National Road, Xiangguan Town and Xiangguan Village).

4.3.3 On-site Solid Waste Pollution and Control Measures

1. Solid waste pollution

The solid waste generated at the construction site is mainly the spoil (slag) from excavation and the domestic garbage from the construction workers.

2. Mitigation measures

(1) The slag should be cleared and transported in time, and the slag dump vehicles should be driven according to the route and time specified by the local public security traffic management department. The transport vehicles shall be enclosed.

(2) The Contractor entrusted a specialized cleaning company to clean the construction site every day to keep the site and surrounding environment clean and tidy;

(3) Hardening pavement of construction site and road;

(4) Equipped with corresponding flushing facilities to flush the transport vehicle tires before leaving the site.

(5) Equipped with waste containers to collect construction workers' domestic garbage.

(6) The septic tanks of temporary toilets are cleaned regularly.

3. Management measures of hazardous waste

(1) Cleaning cloths stained with oil, discarded oil filters, discarded oil and asbestos, etc., should be properly stored, handled and disposed of in accordance with local laws. Hazardous waste should be stored at the designated location and a warning sign should be posted;

(2) There are temporary places at the Worksite 1 and 2 to store lubricating oil and hydraulic oil, which are seepage-proofing.

(3) Construction workers are trained to transport and handle fuel and chemicals in the

right way, as well as make correct actions in case of leaks.

(4) The two constructors have entrusted Chuzhou Chaoyue Xinxing Waste Disposal Co., Ltd. (qualifications issued by Department of Ecology and Environment of Anhui Provincial to deal with these dangerous wastes.

4.3.4 Construction Noise, Influence of Vibration and Control Measures

1. Construction noise and influence of vibration

The main noise sources during construction are heavy-duty trucks, drilling and piling, as well as heavy machinery like excavators and air compressors used in excavation. The construction vibration is mainly from the construction work such as crushing and excavation, and transportation vehicle during transportation, loading and unloading.

The audit team monitored the noise at the site boundary of Worksite 1 and Worksite 2 on April 12 and 13, 2019. The monitoring results are shown in Table 4-1:

Table 4-1 Noise Monitoring Values at the Construction Site and Sensitive Points

Monitoring location	Monitoring time	Monitoring value (unit: dBA)	Standard value (unit: dBA)	Out-of-standard
North boundary of Worksite 1	April 12, 9:00	69.5	70	Compliance
West boundary of Worksite 1	April 12, 11:00	65.6	70	Compliance
Geyoufang Village	April 12, 12:00	58.2	60	Compliance
East boundary of Worksite 2	April 13, 10:00	66.4	70	Compliance
West boundary of Worksite 2	April 13, 10:00	67.2	70	Compliance
Residence near old 104 National Road, Xiangguan Town	April 13, 13:00	63.8	70	Compliance
Xiangguan Village Residence	April 13, 14:30	56.7	60	Compliance

According to the above monitoring results, the boundary noise of Worksite 1 and 2 reached 70dB in the daytime, and the three sensitive points around the construction site also reached the corresponding standard for functional area.

2. Main control measures:

(1) At present, the construction time of the two construction sites is basically 8:00~19:00, and no construction work at night.

(2) The two construction sites are equipped with enclosures. Worksite 1 is adjacent to the main urban area, and its enclosure height is 3 meters, while the enclosure height of Worksite 2 is 2 meters.

(3) All vehicles entering the construction site are driven at a limited speed of 30 km/h;

(4) It is forbidden to honk when the transport vehicle passes through the surrounding villages. Transportation should be reduced as much as possible during peak times.

(5) Constant maintenances are performed to all construction equipment on site to ensure optimal operating conditions and the lowest noise level;

(6) For noisy equipment, apply noise-reducing equipment such as muffler or soundproofing enclosure, and repair it regularly;

(7) Fixing equipment with loud noise and major vibration such as generators is placed away from environmentally sensitive targets.

4.3.5 Control Measures for Soil and Water Conservation

The two contractors took the following measures to prevent water and soil loss:

(1) Strip the topsoil and store it separately.

(2) The piled soil at the construction site was covered by a dust control net.

(3) Sedimentation tanks and silt enclosures were set up on site to prevent silt from moving outside the construction site.

(4) Change or suspend construction activities as possible during strong winds and heavy rains.

(5) The ground at the construction site has been hardened.

4.3.6 Other environmental impacts and mitigation measures

1. Public participation

After paying a visit to the Chuzhou Ecological Environment Bureau and the Lai'an Ecological Environment Bureau, there are no environmental complaints on the two worksites. The audit team has randomly visited several passers-by around the construction site and people from sensitive points, who expressed that the traffic congestion was acceptable and the construction noise at the current stage did not affect their normal rest (no construction work after 19:00 at night).

The two worksites have set up an online monitoring system for monitoring fugitive dust and noise. The system backstage is managed by the Contractor and the system is directly connected to the data management system of Chuzhou Housing and Urban-Rural Development Bureau. The online monitoring system can allow for viewing the PM10 concentration and instantaneous value of noise at the construction site in real

time, and guiding the construction and optimization process according to the pollutant concentration and noise value.

- **5 Health and Safety Performance**

- **5.1 Domestic Management Requirements**

Current domestic laws and requirements relating to occupational health and work safety mainly include:

Law of the People's Republic of China on Work Safety (2014 revision);

Labor Contract Law of the People's Republic of China (2012 Amendment)

Measures for the Administration of Contingency Plans for Work Safety Incidents (2016 revision);

Law of the People's Republic of China on the Prevention and Treatment of Occupational Diseases (2018 Amendment);

Administrative Regulations on the Work Safety of Construction Projects (2004)

Provisions on the Administration of Safety Technology Training and Examination for Special Operation Personnel (2010), etc.

- **5.2 Relevant Policies of the World Bank**

The main policy of the World Bank and International Finance Corporation on health and safety performance is the *Performance Standards on Social and Environmental Sustainability*.

- **5.3 Key Performance Indicators and Statistics**

The primary issue of Worksite 1 and Worksite 2 is construction safety. There has been no construction safety or construction casualty problem since the project commencement, according to the on-site investigation and visit.

- **5.4 Occupational Health and Safety**

(1) All on-site construction personnel hold the health certificate and have signed the labor contract.

(2) A guard room is set on the construction site to prohibit personnel irrelevant to the Project from entering.

(3) It’s necessary to wear safety helmet, safety vest, and take other relevant safety protection measures before entering the construction site.

(4) Publicity, education, and training are arranged for all on-site construction personnel before they take up the post and during their work.

(5) First aid kit is provided in the site office, together with heatstroke preventive medicine, mosquito repellent, and other common medicines.

(6) A health contingency plan has been prepared, to make sure that relevant personnel

can be transported to the nearby hospital in the first time in case of sudden illness and accident.

(7) Corresponding measures are taken to control the environmental impacts such as construction dust, construction noise, and vibration, to ensure the health of on-site staff and construction personnel.

(8) Special operation personnel (electricians and electric welders, etc.) must obtain the relevant permit before taking up their post.

(9) Safety warning signs, etc. are put up on the site, and fire extinguishers and fire hydrants, etc. are equipped.

(10) Fall prevention devices must be used for working at heights.

(11) The two construction sites are regularly cleaned, to guarantee the sanitary condition and prevent disease spread.

(12) The use of mosquito repellent, clothes, and mosquito net, etc. is encouraged to avoid mosquito bite.

(13) Project personnel have been educated to help them understand the existing risks, how to prevent risks, and the treatment available.

(14) Workers are supervised, actively examined, and treated.

- **5.5 Relief and Safety of the Traffic Around**

(1) Contractors have emphasized safety rules to all drivers.

(2) Speed control devices are used for trucks going in and out of construction sites.

(3) The two contractors cooperate with the villagers' committees and traffic management departments around to set road signs, increase visibility, and enhance the overall safety of roads around construction sites.

(4) Emergency handling personnel have been staffed on site, to ensure proper first aid in case of accidents.

(5) Traffic safety control measures, road signs, and signals are set outside construction sites to warn pedestrians and vehicles of the hazardous condition.

- **5.6 Health and Safety Investment**

The two contractors have included the investment in worker health and safety precaution training, publicity, and education and relevant measures, etc. into the project investment, without separately listing the expenses.

6. Audit Conclusion

● 6.1 Executive Summary

In this audit, the environmental protection measure implementation situation and environment, health, and safety system implementation situation of the two sites first commenced in Phase I of Chuzhou Section of Chuzhou-Nanjing Intercity Railway have been audited, and the conclusion is as follows:

(1) Environmental impact assessment on Chuzhou Section of the Project has been completed in 2016, and the reply of approval of Chuzhou Environmental Protection Bureau (CH [2017] No. 33) has been received in Jan. 2017, as well as the land use Preliminary Review opinion of the Department of Land and Resources of Anhui Province (WGTZH [2017] No. 31), and the planning site selection opinion of the Department of Housing and Urban-Rural Development of Anhui (XZ No. 340000201600482). The project construction meets the domestic commencement conditions.

(2) The two contractors have implemented requirements of laws and regulations of the State, Anhui Province, and Chuzhou City and also met the environmental protection policy of the World Bank in the construction process.

(3) Corresponding mitigation measures have been taken by the two construction sites in terms of sewage treatment, dust control, construction noise and vibration control, solid waste, and soil and water conservation, etc., to minimize the environmental impacts during the construction.

(4) The two contractors have a sound occupational health and safety system in place as a guarantee, which can effectively control and solve the health and safety issues in the construction process.

● 6.2 Primary Risk

Based on this audit, no big risk issue has been identified for the two sites commenced so far.

● 6.3 Corrective Actions

Findings of this audit:

(1) The spoil (waste slag) and site cleaning of the two sites has been entrusted to a third-party entity, however, a formal contract or agreement has not been signed. Subsequently, a formal agreement or contract shall be signed immediately.

(2) There are not many on-site construction workers on the two sites at present as it is at the initial construction stage. The construction personnel will be increased later as the construction progress acceleration and in order to meet the construction period requirements, and the existing environmental protection measures and occupational health guarantee and safety protection measures should then be adjusted according to realities.

- Attachments

Table 1 Audit Team for the Project

S/N	Name	Title	Main responsibility
1	Zhang Liangtao	Senior Engineer	Approval
2	Wu Fang	Senior Engineer	Review
3	Sun Zongliang	Senior Engineer	Person in charge of the audit report
4	Mao Wei	Senior Engineer	Preparation of the audit report
5	Guo Hui	Engineer	Investigation of pollution sources of water and air, etc.
6	Yang Yang	Engineer	Other problems on site

- Table 2 Consulting Team for the Project

S/N	Entity	Name	Post/Professional title	Main responsibility
1	Wantong Intercity Railway Corp.	Gao Qi	Deputy General Manager	Consultant
2	Chuzhou Intercity Railway Office	Zhang Rui	Department Head	Consulting
3	Chuzhou Ecological Environment Bureau	Zhao Wei	Section Chief	Consulting
4	Chuzhou Public Security Bureau Traffic Police Brigade	Zhuchao	Section Chief	Consulting
5	Wantong Intercity Railway Corp.	Zhao Fan	Engineer	Consulting

Table 3 Photos of the Sites

 Worksite 1	 Worksite 2
 Traffic sign	 Publicity of site management personnel
 Major risk source publicity board	 Construction site fence

Construction foundation pit

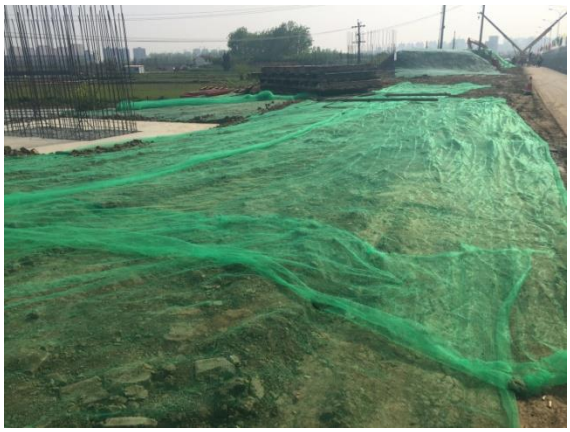
Construction waste stacking area

Construction site dust and noise online monitoring system

Spray system for dust control

Slag and spoil truck

Vehicle washing



Dust suppression net covering the bare ground

Three-stage sedimentation tank

Construction personnel dormitory on Worksite 1

Rebar processing shed

Temporary toilet

Trash can

	
Slurry storage tank	On-site operating vehicle

- Relevant Administrative License

1 Reply on Environmental Impact Assessment

滁州市环境保护局文件

滁环〔2017〕33号

关于《滁宁城际铁路（滁州段）工程环境影响报告书》的批复

滁州市交通基础设施开发建设有限公司：

你公司报来的《滁宁城际铁路（滁州段）工程环境影响报告书》（以下简称《报告书》）收悉。经组织专家技术审查，现批复如下：

一、原则同意《报告书》结论。该工程西起安徽省滁州市高铁滁州站，沿洪武路、丰乐大道、西涧路、龙蟠大道、徽州路、扬子路、G104走行，止于滁州市与南京市分界（滁河），总投资1616500万元，环保投资30293.53万元，线路全长46.05公里，其中地下线长16.17公里，高架线长28.75公里，地面线长1.13公里；共设12座车站，其中地下站6座，高架站6座；设洪武路停车场1座，设汊河车辆段1座；新设110kV主变电所2座。我局同意你单位按照《皖江城际铁路网规划》和《报告书》所列建设的内容、规模、地点、环境监测计划、环境保护措施及生态恢复措施进行项目建设。

二、该项目在设计与实施过程中应重点做好以下工作：

1、强化生态保护措施。施工期应严格控制施工范围，合理布局施工场地，减少对地表扰动和植被破坏。施工表土剥离单独堆存并采取挡土墙等措施，用于施工结束后的土地整治和植被恢复。落实报告书提出的各项水土保持措施，路基工程要做好填方护坡、拦档，桥涵工程应做好桥台区域防护 。

2、项目在实施过程中应按《安徽省大气污染防治条例》要求，加强环境管理和扬尘治理。须配备足够的洒水车、挡风板、蓬布等防尘设备，落实作业场所围挡、物料堆场、取弃土场遮盖，施工区域洒水等措施。施工渣土运输必须覆盖，选择敏感区较少的运输路线。施工场地要做到混凝土硬化、配备高压水枪清洗设备平台，定期清洗运输车辆。拌合站的粉状物料采用筒（仓）储存，拌合过程产生的废气应安装除尘设施并通过不低于 15 米高排气筒排放。确保项目周边环境保护目标大气环境质量不降低。施工期产生的颗粒物等大气污染物排放执行《大气污染物综合排放标准》（GB16297-1996）表 2 中二级标准及相应的无组织排放监控浓度限值。风亭出风口应采取绿化、过滤等消除异味措施，主排风口避免正对敏感点。车辆段、停车场食堂应安装油烟净化装置，油烟排放执行《饮食业油烟排放标准（试行）》（GB18483-2001）。

3、加强水环境保护。优化施工方案，尽量避免雨季开挖，桥梁施工中应设置临时排水沟，疏导施工废水。禁止向水体倾倒废渣、生活垃圾、施工废水及其他污染物。施工场地内的雨水径流、冲洗废水及施工泥浆水等应进行收集、沉淀处理后用于陆域施工场地防尘洒水，不得向地表水体排放。施工营地、场地生活污水经收集处理达到《农田灌溉水质标准》

（GB5084-2006）中蔬菜类作物标准后用于农田灌溉或绿化；具备接入市政管网条件的施工营地、场地，生活污水经预处理达到《污水综合排放标准》(GB8978-96）表4中三级标准，其中氨氮、总磷达到《污水排入城镇下水道水质标准》（GB/T31962-2015）表1中B等级标准后排入市政污水管网进入城镇污水处理厂处理。

4、加强施工期噪声和振动防治。合理布置施工场地、控制作业时间，敏感地段禁止夜间施工；因特殊原因需连续施工的，应履行相关报批手续。车站、风亭、车辆段、停车场与辅助设施的建设，应采用对环境影响小的施工方式，并在周围设立隔声围挡或吸声屏障。加强施工期声环境敏感点噪声、振动监测，发现问题及时采取有效措施，防止噪声和振动扰民。确保施工场地边界噪声满足《建筑施工场界环境噪声排放标准》(GB12523-2011)相关标准。在居民区等敏感点附近施工时，应尽量避免夜间(22:00—06:00)从事高噪声施工作业和物料运输，确需夜间施工时应经当地环保部门批准。

5、严格落实运营期噪声与振动控制措施。优先采用低噪风机和冷却塔，风亭、冷却塔应合理布局并安装消声器，风亭主排风口尽量远离、背向居民住宅等敏感点设置。停车场、车辆段设备选型采用低噪声设备、变频调节等。变电所采用实体隔墙、设备吸声消声、门窗隔声等措施。确保运营期敏感点满足《声环境质量标准》（GB3096-2008）相应要求或维持现状水平。车辆段、停车场厂界噪声满足《工业企业厂界环境噪声排放标准》（GB12348-2008）中相应标准要求。区别不同情况分区段采用减振道床、减振扣件等减振措施，确

保敏感点满足《城市区域环境振动标准》（GB10070-88）中相应标准要求。加强运营期沿线敏感目标噪声和振动跟踪监测，根据监测结果及时增补和完善防治措施。

6、根据《报告书》提出的达标控制距离要求，在地铁沿线、车站风亭、冷却塔以及主变电所的噪声、振动、电磁防护距离范围内，不宜规划建设居民区、学校、医院等噪声、振动和电磁等敏感建筑物。

7、妥善处理处置固体废弃物。施工期和运营期生活垃圾应集中收集后交环卫部门处理；施工弃渣和建筑垃圾及时清运并妥善处理；各类危险废物应按相关管理要求安全处理处置。

8、加强电磁辐射防护。落实电磁辐射防护措施，变电所运行产生的工频电场、工频磁场应满足《电磁环境控制限值》（GB8702-2014）中相应标准要求，最大限度减少电磁辐射和无线电干扰对周围环境敏感点和公众的影响。工程运行后应加强监测。

9、严格落实《报告书》提出的环境风险防范措施，确保风险事故情况下的环境安全。加强车辆运输管理，制定环境敏感路段（含桥梁）危险化学品风险事故应急预案，配备完善的事故急救设备和器材，并报环保部门备案。

10、制定并落实拆迁安置方案和补偿措施，确保不降低动迁居民生活水平和环境质量。在工程施工和运营过程中，应建立畅通的公众参与平台，及时解决公众担忧的环境问题，满足公众合理的环境诉求，主动公开环评文件并接受社会监督。

11、若项目的性质、规模、地点、内容、采用的生产工艺或防治污染、防止生态破坏的措施发生重大变动，应依法重新履行相关审批手续。

三、项目建设必须严格执行环境保护设施与主体工程同时设计、同时施工、同时投产使用的环保“三同时”制度，各项环境保护、生态治理与恢复措施应一并落实。实施好跟踪监测计划，及时发现和解决项目在建设期、运行期的各种环境问题。按规范开展工程环境监理工作。项目主体工程投入运行前，须向我局申请该项目竣工环境保护验收，验收合格后，方可正式投入运行。

四、请苏滁现代产业园管委会、来安县环保局、滁州市环保局南谯分局、滁州市环保局开发区分局按照《滁州市环保局建设项目环境保护跟踪管理办法（试行）》要求，负责该项目日常环保“三同时”管理，并加强项目施工期环境管理。请滁州市环境监察支队加强项目督查。

滁州市环境保护局

2017年1月19日

抄送：滁州市环境监察支队、苏滁现代产业园管委会、来安县环保局、滁州市环保局南谯分局、滁州市环保局开发区分局。

2 Preliminary Review of Land Use

安徽省国土资源厅

皖国土资函〔2017〕31号

安徽省国土资源厅关于滁宁城际铁路（滁州段）工程建设用地预审意见的函

滁州市交通基础设施开发建设有限公司：

《关于滁宁城际铁路（滁州段）工程项目建设用地预审申请报告》（滁交基〔2016〕10号）悉。根据《建设项目用地预审管理办法》（国土资源部令第68号，以下简称《预审办法》）等相关规定，现函复如下：

一、滁宁城际铁路（滁州段）工程对于加强皖江城市带与长三角地区联系，强化区域铁路网，促进沿线经济社会发展具有重要意义。项目已列入国家发展改革委批复的《皖江地区城际铁路建设规划（2015－2020年）》，符合国家土地供应政策，同意通过用地预审。

二、该项目选址位于滁州市琅琊区、南谯区、来安县和全椒县境内。项目用地已列入当地土地利用总体规划，在建设项目农用地转用审批环节，应按照《国土资源部关于严格土地利用总体规划实施管理的通知》（国土资发〔2012〕2号）等相关文件规定，及时完善规划，按法定程序报批。

－1－

三、该项目全长46.05公里，主要建设内容包括线性轨道、站台、车辆段、停车场、控制中心及变电所，总投资161.65亿元。拟用地总面积88.1003公顷，其中农用地27.8613公顷(耕地21.2102公顷，含基本农田6.8085公顷)，建设用地60.0675公顷，未利用地0.1715公顷。在初步设计阶段，应进一步优化设计方案，严格控制新增建设用地规模，节约集约用地。

四、该项目应切实履行耕地占补平衡义务，耕地开垦费不得低于《安徽省耕地开垦费征收和使用管理实施细则》(皖财综〔2001〕1061号)规定的标准，并足额纳入工程投资概算。

五、该项目征地补偿标准按照《安徽省人民政府关于调整安徽省征地补偿标准的通知》(皖政〔2015〕24号)的规定执行，并足额纳入工程投资概算，确保补偿安置资金足额到位。

六、该项目可行性研究报告批准后，要按照《中华人民共和国土地管理法》规定，依法办理建设用地报批手续。未取得建设用地批准手续的，不得开工建设。

七、根据《预审办法》的规定，本文件有效期至2020年1月4日。

2017年1月4日

公开方式：依申请公开

抄送：滁州市国土资源局

安徽省国土资源厅办公室　　2017年1月4日印发

安徽省住房和城乡建设厅

关于对滁宁城际铁路（滁州段）工程项目规划选址的审核意见

滁州市交通基础设施开发建设有限公司：

按照《城乡规划法》、《安徽省城乡规划条例》和《建设项目选址规划管理办法》的要求，我厅对滁宁城际铁路（滁州段）工程项目规划选址进行了认真审查。根据专家论证意见及滁州市城乡规划建设委员会的初审意见（建政函【2016】572），同意项目选址方案，同意核发建设项目规划选址意见书（证书编号：选字第340000201600482号），同时提出以下意见：

一、项目建设必须严格履行规划审批程序，符合规划设计条件，按规划要求实施建设，服从规划管理。

二、项目建设要按照国家有关城际铁路的政策、规范标准进行，处理好与沿线居民区、商业设施、地下空间、城市道路、交通设施及各项建设的关系，注重与城市景观的协调，衔接好不同交通方式之间的换乘，并做好与亳蚌滁宁城际铁路的对接。

三、项目建设要落实好环境影响评价、安全评价等有关报告及报告审批意见确定的环境保护、安全等要求，并切实做好环境保护和安全设施“三同时”工作。

四、在本选址意见书有效期（一年；经申请可延期 6 个月）内，该工程若未通过环境影响评价，或者若未通过省或省以上有关部门批准或者核准，本选址意见书自行失效。

附：滁宁城际铁路（滁州段）工程规划选线位置图。

2016 年 12 月 30 日

抄送：滁州市城乡规划建设委员会市，来安县城乡规划建设局。