

The study on land-use management of long distance pipeline project--a case study of the West crude oil pipeline project

Ji Guo

School of Civil Engineering and Architecture, Southwest Petroleum University, Xindu 610500, China

1205073056@qq.com

Abstract. "Land acquisition difficult" has always been an important factor affecting the construction project, in recent years, especially long pipeline project, problems caused by land-use of construction project become more and more, including resistance of work, disputes and conflicts. The main reason is that the stakeholders of project don't get the profit they expected. This paper analyzes the necessity to study land-use management from the perspective of project management for long pipeline project, puts forward the methods of the land for project management.

Keywords: Land-use Management, Project Management, Long Pipeline Project.

1. Introduction

Because of the special nature of long distance pipeline project, the Land-use types are various, it relates to the government department, the land ownership or right to use and the use of units, numerous stakeholders, between project stakeholders interest relationship is complex, difficult to balance, so it is very difficult to obtain land for construction. It is very adverse to the implementation of the construction project. "Land acquisition difficult" has always been an important factor affecting the construction project, "Resistance work" is also common phenomenon in the engineering construction. This will increase the cost of project, delay the construction period. The current study for these problems mainly from the perspective of the construction land management. In engineering practice, Land-use system of compulsory, and compensation system of land expropriation cannot fully meet the needs of land use, especially for Long distance pipeline project. Due to the particularity of land-use and Land-use acquisition is difficult, we must strengthen the project management of land to meet the needs of project construction. Therefore, it is necessary to study construction engineering Land-use problem from the perspective of project management, which is studied from the Angle of construction units and contractors should adopt what kind of method to manage the land for construction purposes, let it become a basic functions of project management^[1].

2. Project background

At present, the project land management has not widely implemented, but in the linear engineering uses, especially the long distance oil and gas pipeline project, due to the particularity of land, making the project land management has become more and more successful.

West crude oil pipeline project is after the west to East Gas Pipeline Project of national implementation of the western development strategy and a landmark projects, a period engineering construction two lines (crude oil, refined oil) and seven regional, via Xinjiang and Gansu, the entire length of more than 4000 kilometers, a total investment of about 1.49 billion yuan. The project officially started construction in March 2005, after 4 years of construction and trial operation, in November 2009 officially passed the national acceptance^[2]. West crude oil and products oil pipeline engineering is also the first implementation EPC general contracting model of long distance pipeline project, the project land management in the process of using the ideas of partner relationship management, strengthening the cooperation of the parties, the project land management has become more and more successful.

3. Management mode

Long distance pipeline project after many years of exploration, has formed a relatively fixed management pattern, the construction unit and the project management team (PMT) + project management contractor (PMC, usually the supervision) + engineering general contractor (EPC) and its sub-contractors. Management mode relations as shown in figure 1

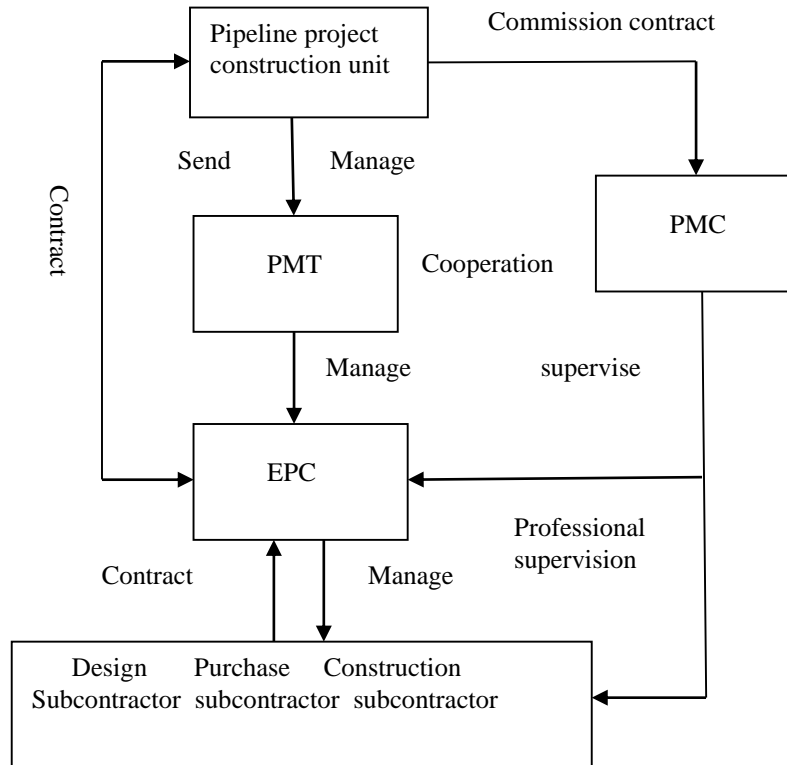


Fig 1. All parties concerned in the long distance pipeline project in West China

Pipeline project construction units, project management contractor, the project general contractor and subcontractor is usually an enterprise system of units, between an administrative relations and multiple interests. Therefore, in the practice of project management, usually to administrative subordination relationship management, which will be replaced by the market mechanism, makes the employer and the contractor in the contract established the legal relationship and mutual equal status to sell at a discount greatly. Is not conducive to the development of project management [3].

4. The necessity of land-use management in the Western Pipeline Project

The most important reason is that it needs to be used in the management of the long distance pipeline projects in the West. In this case, the pipeline project land across the two administrative regions of Xinjiang and Gansu, long distance, large differences in the local policy, compensation standards inconsistent, land acquisition is difficult, we must separate projects for land management in order to make the project proceed smoothly.

4.1 The special nature of the pipeline project

Long distance pipeline project in the west is long, the span is big, and the land is used widely. With the focus of management is to distinguish the category of land, land use classification to temporary construction land use, the permanent construction, pipeline crossing and subsequent use of land across land, pipeline access, and restrictions on the use of land, the pipeline [4].

Temporary construction characteristics: does not change the nature of land and ownership, the construction units and land rights of people signed a temporary contract, pay land compensation, after the completion of the construction works restored the original appearance of the land and returned to their land rights. The temporary construction specific land use patterns have projects in the pipeline laying operations, temporary construction channel, pipe piled up and equipment, materials storage sites, waste soil site and crossing project land temporarily.

Permanent construction land more than the government has allocated the way to the use of pipeline companies, involving collective land is the first to apply for the collection, payment of compensation by the pipeline companies. Specific land use in the first place, in the middle of the station, substation, the line cut off valve chamber, test points, line signs and other sites.

The approval and support of the relevant competent authority shall be obtained from the cross section of the pipeline, and must be compensated for by the land compensation. The specific land use is a river, highway, railway, nature reserve, forest land, and cultural relic's protection zone, military land crossing and crossing with other structures.

Pipe passage and restricted land are used in the construction of pipelines to carry the pipeline, and the land is not directly used by the surface of the earth. This part of the way to obtain the use of no clear provisions, practice is often treated as a temporary land disposal. Specific methods have buried pipeline laying and permanently occupied land space; "the oil and natural gas pipeline protection law" on the surface and pipeline within a certain range around the land use various restrictions.

The land use right of the land use right of the pipeline is not clear.

4.2 Pipeline project land acquisition is difficult

The lack of legal support and the particularity of the land use in the pipeline are the direct cause of the difficult and constant resistance.

At the same time, the compensation standards, the problem of the balance of arable land, the demolition of the project along with the environmental problem is the direct cause of conflict with the land.

In addition, the public welfare and commercial property of the pipeline project is a series of problems which are faced with the pipeline project. The public benefit of the pipeline makes the time limit for the pipeline enterprise, and it will make the pipeline enterprise to obtain the land by the construction side. The commercial nature of the pipeline makes the pipeline companies at a disadvantage in the negotiations on the issue of compensation standards.

5. Land-use management method

In the West crude oil pipeline project management, pipeline companies should be in saving the principle, give full play to the supporting role of "land management law" and other legal system and policy, strengthen the cooperation of the construction unit and the contractor, jointly developed effectively pipeline through the right strategy, use management has become an important function of project management.

5.1 Support function of legal system

Such as the West crude oil pipeline project of long distance oil and gas pipeline project land, although has certain particularity, but can be from the legal and policy to find a breakthrough point, to find a scientific and effective method to solve the problem^[5].

(1)The acquisition and compensation of temporary land and permanent land use and land use in the long pipeline projects can be adjusted by the relevant provisions of the land administration law.

(2)The newly revised "land management law" to revise the provisions of the relevant "expropriation" and "requisition", that in the pipeline project land does not need to all land are levied, some with only need to expropriation can meet the project requirement, also do not need hold the land expropriation procedures.

(3)Pipeline planning to coordinate with the urban and rural planning and management, pipeline engineering and other construction contradiction to have an effective way to solve this problem, after the start of construction of the project to obey first started on the construction of the project.

(4)Construction land use rights can be sub ground and underground were set up, this also means that the road made to land use rights, pipeline companies will not need to the side of the road to pay land use fees, just pay security fee, can direct access to underground land use right.

(5)The pipeline enterprise may, in consultation with the relevant provisions of the ground service, obtain the pipeline through consultation, and through negotiation the compensation fee shall be agreed.

5.2 To develop effective pipeline through power strategy

The earlier analysis of pipeline project management model, in practice although the construction unit is a project with the main body of the management, but it must be the contractor assistance in order to develop a practical pipeline through the right strategy.

(1)PMT and EPC and its subcontractors shall reasonably division of labor. PMT is generally responsible for the coordination of the provincial level, EPC is responsible for the coordination of county and township level, the sub-contractor can be responsible for the specific operation of village level.

(2)Independent of the examination and approval of the cost of payment system, according to the signed agreement, of compensation, land management fees, coordination costs, consulting and service fees pipeline through a rights fee, paid directly by the examination and approval of the PMT, to reduce the level of links.

(3)With the basis of statistical data, in conjunction with the local government and the land management authority, common on-site delivery pile, line, and, area of investigation and registration statistics, confirm, review and approval of adhesion with ground to ground, ground.

(4)The establishment of a special working group to deal with compensation disputes and stop work.

(5)The publicity and education of the land laws and regulations for the construction team to regulate its land use, and to require the construction of its civilization, and to protect the ecological environment and the interests of the people. Disposal of abandoned soil, restoration of landform and land reclamation.

(6)The support and trust of the local people is to facilitate the smooth development of the work of the management of the project by means of free assistance.

5.3 Implementation of partnership for project management

Under the EPC general contract mode, it can be used to manage the relationship between the partners and the legal application of the partnership. Through cooperation and consultation to solve the problem of land management, more flexible.

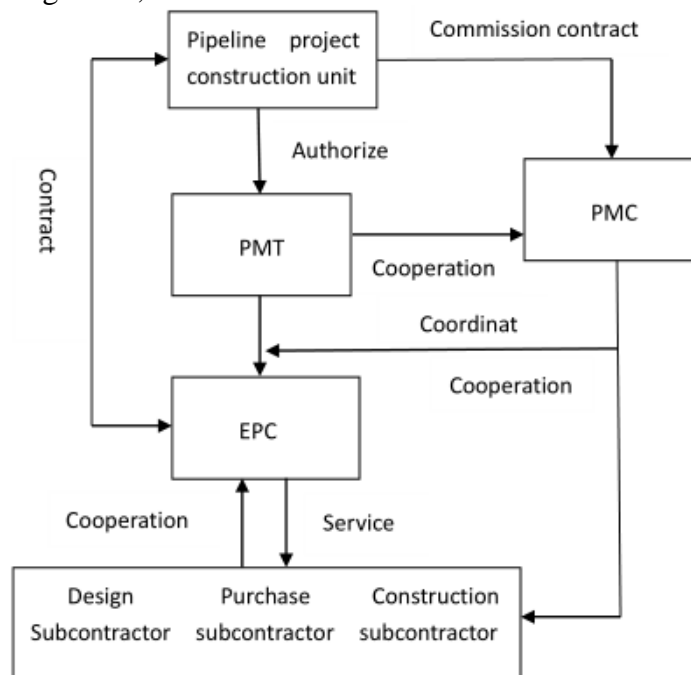


Fig2. Improved three party relationship of PMT, PMC and EPC

After the improvement of the relationship between the parties, as shown in Figure 2, it is more conducive to the idea of partnership projects with land management, can be signed by the project coordination manual as a guide to action. First, it defines the relationship each other and working interface, convenient for professional and scientific way to timely completion of the project land management work; secondly, the western pipeline project established the land information management system, owner, supervision and contractor can be used, which schedule of subsequent analysis, cost management and provide the basis for decision making^[6].

Seeking the management thought of cooperation between the parties the EPC contractor is to focus on the management of global cooperation and because, control the administrative means of abuse, established a relatively perfect management system, makes the western pipeline project land management can be a high quality and efficient completion.

6. Conclusion

This paper analyzes the necessity of strengthening the management of the long distance pipeline project by the project management, put forward the method of land-use management from the perspective of project management. This article analysis the method of long distance pipeline project land-use management from the legal system, the pipeline through the power strategy and the partnership I hope this paper can provide a reference for long distance pipeline project management.

References

- [1] Hongyong Liu, Ji Guo, Qiushuang Huang. The study on land-use management of engineering project from the perspective of projects' participants: *International Journal of Science*, Vol. 1 (2014) No. 7, p. 23-27.
- [2] Yaodong Zhang, Improving long distance transportation pipeline project management by using partnership: *International Petroleum Economy*, Vol. 8 (2010) No. 18, p. 61-66.
- [3] Zhihong Liu. Survey of land use in linear engineering projects in Northwest China: *Land of China*, Vol. 1 (2011) No. 6, p. 49-51.
- [4] Qilin Lin. Analysis on the problem of land requisition compensation system in China: *Agricultural economic problems*, Vol. 8 (2009) No. 10, p. 19-24.
- [5] Xiaozhong Li. Legislative issues of construction land system: *The front*, Vol. 3 (2008) No. 12, p. 114-115.
- [6] Yaodong Zhang, Yuanpeng Chen. Theory of Oil and Gas Pipeline Project Land Management: *International Petroleum Economy*, Vol. 7 (2010) No. 18, p. 64-68.