

Research on Audit of Engineering Materials

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Abstract: As an important part of the project under construction audit, quality of audit work will greatly affect quality of audit work of the project construction. In view of large scale of construction projects in China and overall low quality of engineering materials audit, this paper analyzes relevant factors affecting the quality of engineering materials audit, and puts forward its own views on how to improve the quality of engineering materials audit.

1. Introduction

With the rapid development of China's economy, the scale of engineering construction is getting larger and larger. The audit requirements for engineering construction are getting higher and higher. As an important component of project cost, the quality of engineering materials audit will greatly affect the quality of engineering construction audit. In the current situation of corruption in construction enterprises in China's engineering construction projects, if the quality of engineering materials audit cannot be improved, the quality of management control and audit of the entire engineering construction will definitely be affected. However, the development of engineering materials auditing in our country is rather slow, the efficiency of engineering materials auditing is very low, the auditing methods and means are relatively backward, the professional and moral qualities of auditors are not high, and the quality of engineering materials auditing is not high. Therefore, it is particularly urgent to study how to perfect the standards of engineering materials auditing and ensure the quality of auditing.

2. China's Engineering Materials Audit Status

Generally speaking, due to the late start and weak foundation of our country's CPA audit work, the quality of our country's engineering materials audit work is generally not high after nearly 20 to 30 years of rapid development. At present, most of our country's engineering auditing methods use the traditional auditing methods, which mainly rely on manpower to carry out various accounting, but too much reliance on manpower may lead to audit errors. Many enterprises do not pay attention to this audit, the professional quality of auditors is low, and often do not pay attention to the audit details, which cannot guarantee the accuracy and final efficiency of the results. The corresponding auditing procedures implemented by auditing departments and auditors are not perfect. As of April 22, 2019, AICPA, a total of 40 accounting firms have issued financial statement audit reports for 1482 listed companies, 1,478 companies have issued unqualified audit reports, 12 companies have provided relevant reports of some integrity projects, and 4 companies have provided reports of important material audit contents of some projects. According to these data reports, we find that in fact, it is rare to find problems in the internal audit of companies. Even if there are some mistakes or omissions, it has not given enough attention and appropriate solutions. Of these statements, only 7% are related to material audit, and most of them are incomplete, unsystematic, even incomplete and low-level audit, which has the effect of overall project control and supervision, accounting for only 2.1%. This shows that the audit of engineering materials is not paid much attention in the audit report. However, many enterprises have encountered great problems in the audit of engineering materials. For example, Santai Group could not use the engineering materials due to problems in the material demand plan,

and because the use plan was inaccurate, the engineering materials eventually became overstocked. Another example is the material audit of China Resources in Anqiu. The internal audit team of Jinan Region conducted an audit of China Resources in Anqiu and also found that the project materials did not conform to the actual accounts. Another example is the management audit of engineering materials in Shandong Electric Power Group. Through the strict examination of the capital expenditure of the enterprise, the management personnel found that the material flow of some departments under the enterprise had such omissions as unclear accounts, incorrect real numbers, lax warehouse operation, and failure to carry out inventory check.

3. Problems Existing in Audit of Engineering Materials in China

(1) Failure to Pay Due Attention Due attention means that in the process of practicing, certified public accountants should maintain their special professional caution and sensitivity, and judge the reliability of material data with suspicion and inquiry thinking. However, the reality is that in the implementation of the audit of engineering materials, most auditors in our country lack the above necessary qualities and do not fully realize the significance of this link for the later stage of construction, thus carrying out strict and careful review, resulting in the audit process being full of loopholes and the level being ugly. Many of the audit work of engineering materials only started after the completion of the construction project, without paying much attention to the audit of the planning stage of engineering materials, but this link is very important. Through the material audit, not only can we control the material expenditure in the whole process, but also, more importantly, we can make appropriate adjustments to the material plan and improve the audit level of the project before the construction starts. However, the survey shows that most companies in our country pay little attention to this aspect, especially the actual operability of engineering projects, not to mention strictly refining the audit contents. For these companies, the visible economic benefits and the expected demand for funds in the overall plan determine whether the project can be put into practice. This neglect and nonstandard review of the actual investment budget results in many schemes deliberately lowering the budget to improve the project initiation rate. Its feasibility is extremely unstable, the plan is not mature, and audit errors such as budget exceeding standard frequently occur in the later construction. The audit of engineering materials often takes the form of on-the-spot investigation, but at present, few workers in our country actually carry out on-the-spot audit, and the invoice documents of materials shall prevail. As a result, some of the projects conveniently took advantage of the fact that auditing could not control the authenticity of the bills, leading to visa signing disorder and even allowing retroactive signing afterwards. Fake issuance of bills, increase construction costs without authorization, and make false statements about the cost of construction materials, so as to obtain more funds from the enterprise. The issuance of bills is not subject to supervision, so the rights and responsibilities cannot be matched, and the process is clear and transparent. The amount of the bill is unknown and it is difficult to distinguish the true from the false. On-the-spot inspections are useless and the conduct of the executives is low. These four phenomena are common in domestic audit investigations. During the implementation phase of the on-site audit, the rationality of the contract regulations between the two parties, the standardization of the power and responsibility regulations, the timeliness and unity of making funds, and the reasonable price of materials are only part of the on-site audit. In this step, enterprises and auditors do not attach importance to them, resulting in many problems after the completion of the project.

(2) Inadequate pertinence of audit procedures. First of all, for engineering materials valuation audit. The valuation methods of engineering materials cost include first-in first-out method, one-time weighted average method, moving weighted average method and individual valuation method. Enterprises can specify which method to use according to the specific conditions of the company. However, in the process of engineering materials audit, some auditors do not pay attention to the methods used by enterprises, and there is a big gap between the cost calculated by different methods, which will lead to the untrustworthy results of engineering materials audit. There are two kinds of engineering materials: those for installing machinery and equipment and those for building houses.

Therefore, there are two kinds of situations: first, engineering materials for real estate cannot be certified and deducted, and the total asking price tax is included in the engineering materials. Second, engineering materials used in production facilities can be certified and deducted, so the asking price tax is recorded separately. At the same time, if the capital input for the project construction comes from individual merchants, the tax payable on all the return income in the construction, that is, the VAT payable, must be recorded in detail. Of course, VAT records do not need to be transferred out in detail every time building materials are transferred out. According to the relevant regulations of the national tax law, VAT generated from purchasing building materials should be listed separately in the construction cost report, and should not be calculated repeatedly with taxes payable. Many auditors are not clear about the above concepts, the auditing methods are not correct, and not all the data reports are counted. The credibility and accuracy of the obtained auditing results are not high. Secondly, the cut-off test of engineering materials was not carried out well. Projects under construction refer to the unfinished project expenditures such as new construction, renovation, expansion and facility renewal of enterprise assets, which generally last for a long time. As one of the most important links, engineering materials will have some problems in the long-term audit, such as unclear deadline test for engineering materials audit. Since there is no accurate figure for the materials and materials of the completed project, more materials and materials will be put into the project than planned. However, when the project materials that started to be put into use are not all used up, many auditors will include them in the projects under construction. However, the unused materials still belong to the project materials. In the audit work, the auditors lack the awareness of the importance of their own work, and some people have low professional quality, improper learning attitude, and even unable to accurately divide certain professional concepts, resulting in confusion in the audit process. What's more, it is not until the audit that relevant knowledge is added, or "formal" audit is carried out to directly use the data results reported by the enterprise. If bad entrepreneurs use these loopholes, forge audit materials, cut corners, reduce costs and reap huge profits, they will not only cause huge deviations in audit results, but also disturb the industry standards of engineering materials audit, reduce the reputation of the audit industry and cause huge economic losses. Finally, it failed to accurately divide the inventory and engineering materials in the audit work. In the audit process, the accurate distinction between the concepts of inventory and materials is the basis to ensure the accuracy of the audit. The former is a liquid asset, while the latter is a non-liquid asset. The definition is different, and the contents of the two are also different. The former mainly includes the company's inventory products for daily consumption or production activities, as well as semi-finished products that have not yet entered the inventory. The latter is the general name of materials used for fixed assets, turnover parts and materials to be processed. Inventories are spare products held by enterprises in their daily activities that have not yet entered the circulation process. Engineering materials are raw materials and equipment that the construction party needs to purchase after the project starts. At present, domestic audit departments often confuse the two concepts. At the beginning of the audit, inventories and materials are enlarged and quantity statistics are made indiscriminately. This negligence in the preciseness of the materials audit results in the later period are not credible and accurate. Even if the audit work goes to the final stage, there will still be a considerable number of auditors with low professional quality who cannot accurately distinguish the concept definition of the two and carry out review with vague basic requirements, which leads to inventory being included in the category of goods and materials or goods and materials being included in the category of goods and materials. This phenomenon is a lack of awareness of the necessity of the essence of engineering materials, thus confusing the boundaries between materials and inventories. At the beginning, the target and specific contents of the audit were mistaken, and then the domestic audit results could not be perfect and accurate regardless of whether the following procedures were deficient or not. As a result, it is not only the quality of the personnel in individual links that affects the audit results, but also the employees' standard is not up to standard. The overall industry environment is not conducive to the smooth development of the audit work. The credibility of the reports and settlements given by the audit industry cannot reach the required level.

(3)The quality of auditors needs to be improved. Low business capability First of all, the professional ability of auditors needs to be improved. The level of business ability depends on whether the practitioners have sufficient professional knowledge reserves, whether they can predict various doubts and risks, and whether they can calmly and professionally take corresponding measures to solve them. China's auditing industry has revealed its lack of professionalism and sense of responsibility in three aspects: first of all, some employees are low-level and lack of practice, which makes it easy to ignore or miss the audit of the authenticity of enterprise financial accounts; Secondly, some practitioners do not have sufficient knowledge reserves, are not competent for all aspects of the accounting work in the actual review process, are not even sufficient for detailed on-site review, and rely too much on the bills provided by enterprises; Finally, some practitioners lack the necessary legal literacy. As a professional, he knows little about the domestic auditing laws and regulations, and he doesn't take the initiative to learn in his normal work, which leads to the inability to effectively find legal doubtful points in material auditing in important auditing links, or even to directly and carelessly ignore them. These problems will inevitably lead to the reduction of audit quality. At present, most of the employees in the domestic audit industry come from accounting major and other fields, and there are very few supplementary talents with other relevant audit knowledge. Because of this, not only the auditors in the enterprises, but also in the state departments basically only have knowledge of finance and accounting, but they know little about laws, mathematics and other knowledge. Similarly, professional engineering personnel are also scarce resources in the audit industry, and the knowledge accomplishment of these engineering personnel may not meet the requirements of the high-standard audit industry. To sum up, at present China's auditing industry needs a large number of practitioners with comprehensive knowledge and rich auditing experience. Secondly, professional ethics need to be improved. No matter what kind of work they are engaged in, the employees must have certain professional accomplishments and have professional standards to follow in their work. To be precise, moral standards rooted in social humanity will be concretized in all walks of life, that is, externalized into more detailed professional ethics. There is also such a principle norm in the auditing industry, whose function is mainly to restrict the working attitude of auditors and balance the interest relationship between auditors and investors of all parties. Especially in the audit industry, there are gaps in relevant laws and regulations, which lack mandatory binding force on practitioners, and practitioners have different qualities, and their awareness of professional ethics is not high. The prospect of the engineering industry is bright, but there are also a large number of economic repression and competition phenomena. In order to seize the market, enterprises, investors and other forces often take unfair competition measures from the perspective of auditing. Without strong sense of responsibility to support, auditors are vulnerable to temptation or threat and violate the auditing professional ethics. The negative effect of this kind of bribery is mainly reflected in the credibility and accuracy of the audit results. The reason is that the domestic audit lacks legal control, the procedures are not relatively independent and rigorous, and too many external factors are mixed in the audit process, which affects the rational judgment of the auditors. In 2004, government departments sampled the audit reports of some domestic large, medium and small accounting firms and the financial statistical reports of 55 related companies. The final results showed that the audit information of many large listed companies such as Huangshan Tourism and Sanpu Pharmaceutical were not up to standard, or there were many defects such as vague basis, loose procedures, etc. Some companies even “greeted” the auditors, forged data and made false statements about the amount. The above examples and data show that many accounting firms and their certified public accountants in our country have the problem of lack of professional ethics.

4. Improve Audit Strategy of Engineering Materials

(1) Maintain due professional suspicion. At the stage of planned audit, first of all, whether the supply and demand of the materials needed for the project are balanced, whether the price is reasonable, whether the quality is up to standard, and whether the transportation location is

appropriate are the core issues of the audit. These data represent the level of project construction efficiency and the proportion of final revenue and expenditure. Secondly, the enterprise situation of the material supply partner shall be reviewed to ensure that the partner can satisfy sufficient material supply and money exchange, and that the partner has sufficient enterprise credibility and output conditions, so as to provide another layer of safety guarantee for engineering construction and reduce potential threats. In the implementation of the audit work stage, it is more important to check and audit the main materials required by the project. Therefore, whether the transfer of the most important raw materials needed by the project under review and the corresponding balance can be fully met. Once the difference is found to be different, the audit department must conduct an in-depth review of the flow of materials to prevent unnecessary waste of materials and even profit from reselling. At the same time, it is also necessary to prevent the engineering side from making a false report of costs, that is, there is a phenomenon of material degradation and jerry-building. The existence of the above two situations will seriously affect the reliability of the audit report and the overall quality of the project. After that, can the required building materials in the budget plan and the raw materials actually purchased be unified in specifications and prices? The reason why the audit attaches importance to on-site investigation is to ensure the execution of the material purchase plan. Finally, check the identity between the construction process and the plan. The audit report must reflect whether the project plan provided by the enterprise has been thoroughly implemented and whether the purchase of materials conforms to the general price and reasonable laws of the market. Finally, there is a post-evaluation link after the material audit. In addition to giving feedback and suggestions on relevant issues to the enterprise, the audit department should also carry out review work in combination with the specific conditions of the audit project. This is the re-accounting of the preliminary audit results and can further provide data reference and direction reference for the later audit. It can be divided into the following aspects: First, the audit report is analyzed in depth for the second time. At the end of the audit, a deeper level of results accounting and on-the-spot investigation are needed to find out the root causes of the existing problems. Second, according to the final report given by the audit department, the solutions to the doubtful points are given. If the auditors find that the project plan is defective due to the management problems of the enterprise system, according to the industry regulations, the audit department needs to supervise the enterprise, supervise the enterprise units to find out the problem nodes, improve the management system, and improve the expected efficiency of the project construction and the professionalism of the internal audit of the enterprise. If the audit department finds that the enterprise has not taken effective measures to improve the potential problems existing in the project in the follow-up field tracking, it needs to use coercive force to force the enterprise to take measures, otherwise the enterprise will be punished accordingly.

(2) Adopt targeted audit procedures. In order to further develop the audit of engineering materials in our country, it is urgent to summarize the problems existing in the current audit of engineering materials, summarize the solutions, and innovate the traditional methods in the past, so as to make the audit of engineering materials have a set of scientific audit methods and means. In the previous discussion, the author mentioned that domestic auditors generally have the problems of not having a wide range of knowledge and low professional quality. Therefore, it is imperative to cultivate auditors' learning habits so that they can continuously improve their audit knowledge reserve and master the legal and engineering knowledge required by audit. A professional auditor must have a profound understanding of the relevant regulations and be able to deal with all kinds of examination needs reasonably, legally and appropriately. In addition, it is necessary to have a considerable level of economic and tax knowledge in order to carry out on-the-spot investigation and supervision of enterprise projects, and to maximize the effect of tracking audit methods, so as to make the audit work more accurate. The seriousness of the auditors directly determines the degree of rigour of the audit. Therefore, auditors must maintain a high level of attention and high standards for material audit, strictly follow the relevant regulations to implement the audit procedures, and find problems from the details. Some domestic audit work lacks understanding of cut-off engineering materials, so they should correct their attitude to enrich themselves and improve their quality, so as to accurately

distinguish the material attributes of different construction periods in the subsequent audit, classify them in detail, and make the audit work not sloppy and error-free. This article mentioned that quite a number of audit practitioners are confused about the concepts of inventory and materials. In view of this kind of rigid defects, the audit industry needs to pay attention to the professional knowledge training and promotion of the practitioners, so as to ensure that the practitioners will not make mistakes in judgment or perfunctory acts after taking up their posts because they cannot distinguish between the two. In addition, auditors should strengthen their familiarity with targeted audit procedures for engineering materials in daily life, accumulate more relevant experience, practice makes perfect, and one of the effective ways to improve audit efficiency and ensure audit credibility when rich experience is acquired.

(3) Improve the level of auditors. There are still many problems that need to be solved urgently in China's audit team. Based on the current situation, all investors and enterprises need to understand their internal audit level, pay attention to the recruitment of high-level auditors, and further upgrade and retrain the existing audit team, so as to strongly support the quality construction of the audit team. In order to improve the overall level of auditors, the first point is to optimize and improve the composition of the team, and to absorb a large number of comprehensive talents with legal, auditing, taxation, economic and other capabilities into the audit department. The second point is to attach importance to the re-education and in-depth training of new employees, regularly check the working ability of auditors, update their auditing concepts and methods, popularize the latest laws and regulations, and ensure the moral and moral standards of the employees. As a people-oriented audit department, the professional level of auditors determines the work efficiency of the whole department and whether the audit industry can adapt to the speed of economic development. Therefore, both inside the enterprise and the national audit department must recognize the great role of audit skills training, increase investment in on-the-job training, provide auditors with opportunities to accumulate knowledge in accounting, taxation, auditing and engineering, and quickly train employees who can be competent for audit work. Only in this way can the audit of engineering materials no longer be blind. The rotation system can enable the audit department and other departments to cross each other and learn from each other, so as to effectively improve the business ability of the audit department. In order to maximize the interaction of this system, it is suggested that the company's management actively absorb outstanding talents in audit-related fields, such as engineering, economy, etc. In addition, auditors can also accumulate considerable management experience through communication and exchange with management personnel, which is helpful for the overall planning of audit work. At present, the official audit department needs to focus on correcting the problem of the employees' poor moral style, and vigorously carry out promotional training for personal professional ethics. In addition, various forms can be taken to strengthen the education of auditors, such as professional ethics examination and moral construction group activities, to enhance the overall sense of responsibility and honor of auditors, to make them proud of strict and fair auditing, and to cultivate honest auditing style. When they are faced with moral condemnation and legal risks, this sense of honor and responsibility will become their protective wall against temptation, keep a fair sober agent, and urge them to complete the audit objectively and fairly according to the procedures.

5. Conclusion

In the development period of the new era, China's economy has entered a new stage and a new mode. The market is increasingly promoting the economy. All kinds of construction projects are springing up everywhere. A project is put forward, to ensure that it can be put into construction, the audit of engineering materials is the most important part, which is the basic condition to ensure overall quality of the project and the smooth construction. The smooth development and reliable conclusion of the material audit work are of great significance for controlling project cost and improving construction quality. At present, the auditing of engineering materials in our country still needs further development and standardization. The lack of legal restrictions, unsound management

system, nonstandard procedures and low level of employees are all the problems exposed in the front. This paper attempts to make a simple analysis of these phenomena, and tries to put forward corresponding solutions and improvement suggestions from various angles, in order to improve overall work quality and efficiency of the industry, also to ensure the healthy operation of the engineering construction market and the healthy competition between enterprises.

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