Waqas Mehmood Danish

Case Study

Providing Innovative Risk Solutions

Providing Innovative Risk Solutions:

"Providing flexible risk solutions to the clients can help establish win-win scenarios."
Waqas Mehmood Danish, Manager, Underwriting, IGI Insurance Limited

Key Parties Involved:

1. Prospective Insurer – IGI Insurance Ltd.

IGI is a public listed general insurance company (PSX: IGIIL) founded in 1953. IGI is part of the Packages Group and largest insurance company by market capitalization. Headquartered in Karachi, IGI has offices in 8 cities nationwide and offers a wide range of general insurance products including Fire, Motor, Marine, Travel, Health, Personal Accident, Engineering and Home Insurance.

2. Prospective Insured – Manufacturing Excellence Pvt. Ltd. (MEPL)

Manufacturing Excellence Pvt. Ltd. (MEPL) manufactures pre-stressed cement concrete poles.

Note: Actual name of insured company has not been mentioned to maintain confidentiality.

Introduction:

Several Electric Supply Companies in Pakistan place orders with Manufacturing Excellence (Pvt.)Ltd. to manufacture the Pre-stressed cement concrete pillars which are used as utility poles to dispatch electricity in various areas of Pakistan. Amongst these companies are the Lahore Electric Supply Company Limited (LESCO) and Peshawar Electric Supply Company Limited (PESCO), which form a major part of Manufacturing Excellence's Clientele.

In July 2017, Manufacturing Excellence Pvt. Ltd. (MEPL) signed an agreement with PESCO according to which it would manufacture and supply pre-stressed cement concrete (PC) poles to PESCO for the next five years. This was an exciting venture for MEPL and appeared to be a major boost for the company's performance in the coming years. The staff anticipated great growth prospects and therefore handsome increments.

MEPL had a manufacturing facility in Lahore. However, it would be impractical to manufacture poles in Lahore and supply them all the way to Peshawar. Alternatively, MEPL signed a contract with a third party in KPK province. According to the contract MEPL would utilize the third party's manufacturing facility to reduce its production and transportation costs. The facility located at 70 km from Peshawar in the Nowshehra District would serve as an easy approach to several godowns owned by PESCO throughout Peshawar.

Before the project could commence, PESCO demanded a performance guarantee from AA rated insurance companies in Pakistan. MEPL acquired a guarantee worth 10% of the project cost from IGI Insurance Limited. Moreover, Workmen Compensation Insurance was also acquired for the workers of MEPL. Apparently, things were all good to go and all the necessary insurance coverage was in place.

Background of the Case:

Pre-stressed cement concrete (P.C.) poles are inherently safe. Concrete is fire-resistant and chemically stable. Water does not cause any damage to these poles and atmospheric impact is quite mild too.

However, just before the operations could begin; the technical manager at MEPL noticed a clause in the contract which may be a concern for the company. The clause read as below:

"Any damage to the P.C. poles caused during the transit from manufacturing site to PESCO godowns or during the loading/unloading process; shall be a liability of MEPL. PESCO shall not accept any damaged supplies whatsoever. Surveyors shall be appointed at the warehouses of PESCO at the time of unloading to verify the physical condition. Any damaged poles shall be immediately returned."

The technical manager noticed that each of the poles was 25 ft. long and weighed around 963 lb. Generally, 30 poles were transported in a single carriage vehicle at a time. Each pole can cost up to Rs. 10,000 which meant that there was an exposure of Rs. 300,000 per vehicle. 5-10 consignments were planned for the PESCO warehouses on daily basis as per requirement. Hence, the maximum exposure on daily basis could go up to Rs. 3,000,000.

For a middle sized company like MEPL which had no prior experience of working in KPK province, and which was not

very familiar with the transportation facilities and infrastructure in the province, an exposure of Rs. 3,000,000 on daily basis was quite high. The finance manager suggested getting insurance coverage for the damage to poles during transportation and loading/unloading to minimize risk and stabilize performance.

Additional Details:

Finance Manager of MEPL approached IGI Insurance for the risk coverage of damage to the poles during transit and loading/unloading. Previously, MEPL had also got a performance guarantee and Workmen compensation from IGI for the same project. It was therefore anticipated that IGI would provide a quick fix for the problem at hand.

While expectations were high, the fact remained that from insurance point of view this was quite az unique proposal. IGI had not dealt with any similar case before. Underwriters noticed that conventional form of coverage for any stocks e.g. concrete poles was "Fire and Allied Perils". This type of insurance could cover poles against damage due to fire, earthquake, lightening, domestic explosion and other perils like atmospheric disturbance, burglary, etc. On the other hand, a marine cover for stocks could allow for coverage during transit. However breakage of cement pool during loading/unloading still remained a grey area. The conventional coverage would not be a feasible risk solution! The same was communicated to MEPL.

The Finance Manager at MEPL rightly noticed that none of the perils covered in FAP and marine policy would fully cover MEPL's risk. The risk of breakage or physical damage to poles during loading/unloading which was deemed to be a significant concern had been left completely unattended. MEPL was dissatisfied with this response and went back to IGI with queries and reservations.

IGI's underwriters were facing immense pressure from the marketing team to make a decision which would help retain the business and not cause any damage to the longstanding relationship of the two parties. They reviewed the case and termed it as "beyond the company's risk appetite". However, considering the existing relationship with the insured it was very difficult to deny coverage straightaway.

CFO of MEPL asked for a final proposal from IGI, else he would be inclined to involve other insurance companies. Involving other companies could possibly have an impact on other lines of business as well. IGI finds itself in a fix. A decision had to be made. The client would not wait longer!

Solution:

The Underwriters at IGI involved Risk Engineers at the office to come up with a feasible solution to the problem at hand. On a positive note, IGI had the expertise of Electrical, Mechanical and Civil Engineers in the office that could help the underwriters figure out a technical problem.

The underwriters and risk engineers sat together in the meeting room to reevaluate the proposal forms and contract agreement provided by MEPL. Records of existing business and prospective growth of business with MEPL were also brought to discussion.

After a keen analysis of the proposal a final verdict was reached: Although the risk was quite unique and unusual however this was not a sufficient justification to deny coverage, especially considering the existing business relationship with MEPL. If the risk is duly analyzed, sufficient information is provided by the client and adequate pricing is done, coverage could be provided.

The team identified some necessary information that may be required to assess the risk fairly:

1. Strength Measures and Rejection Criteria:

Some of the engineering properties of hardened concrete include Elastic Modulus, Tensile Strength, creep coefficients, density and coefficient of thermal expansion etc. Concrete (compressive) strength is by far the most important property of concrete. It represents the mechanical properties of concrete and also considered a key factor for durability performance.

Concrete poles must be manufactured in compliance with internationally accepted standards such as those of "American Society for Testing and Materials" (ASTM). To gain the insurer's confidence, MEPL should share the details of all the relevant codes and standards that are complied and showcase all efforts that are made to avoid any deviation from standards.

There are various ways to determine the strength of concrete. The tests generally conducted are:

a. Water Cement ratio (as the strength highly depends on this proportion)
b. Workability test
c. Slump Test (it detects the extent of segregation in concrete)
d. Strength test of concrete blocks after 28 days to check the characteristic strength of concrete
e. Tests for aggregates:
    i) Abrasion test
    ii) Crushing test
    iii) Impact test
    iv) Shape test
    v) Soundness test
    vi) Specific gravity test
    vii) Water absorption test
    viii) Stripping value test
    ix) Rebound Hammer Test- RH Test
    x) Ultrasonic Pulse Velocity- UPV Test
    xi) Combined Method UPV & RH Test
    xii) Core Extraction for Compressive Strength Test

MEPL should share records of all such tests to highlight that concrete manufactured by the company fulfils the requirements. Also MEPL should justify that the third party vendors who conduct these tests are competent, and therefore the results of the tests are completely reliable.

MEPL should be requested to share the material rejection criteria. What happens if the test results portray that concrete batch manufactured is below par? Is whole of the batch immediately wasted?

2. Quality Assurance Process and Methodology:

Having standard operating procedures in place is one thing, implementing them to the fullest is another! MEPL should showcase how all the testing procedures mentioned above are performed to the finest possible accuracy. Profile of quality inspectors in terms of their experience, educational qualifications and professional trainings should be shared. Authority matrix of the organization should also be analyzed to understand the powers allocated to quality assurance department. Ideally, quality assurance professionals should be authoritative enough to raise “red flags” in case they observe stark violations of the quality standards. The Quality Assurance Department should be lead by a senior professional to reinforce its authority and significance. All such details pertaining to QA should be communicated with IGI.

3. Profile of Transporters:

Quality and experience of the transporter involved in transit of stocks is very important. Ill-trained staff and drivers can cause serious damages to the stocks during movement. Hence, it is essential that MEPL chooses its transporters after keen evaluation of professional and ethical capabilities. MEPL should share detailed profile of its transporters with IGI, highlighting their similar experiences in projects of equal or greater magnitude. Fitness of vehicles used for transportation and driving licenses of drivers should also be verified and communicated to the insurer.

4. Transit routes and destinations:

Quality of road on the transit route can significantly impact the wellness of stocks to be transported. MEPL should clearly identify all destinations where the P.C. poles would be dispatched to. Also, routes used for this journey should be identified. All efforts should be made to use transit routes that are good quality national highways. IGI would reserve the right to deny coverage for warehouses located in congested areas with bad approach roads.

5. Loading/Unloading Practices:

Because loading/unloading is a major risk factor for the safety of poles, it is crucial that MEPL shares with IGI all relevant details regarding the loading/unloading procedures. These procedures should be documented and well communicated throughout the functional workers. The documents should highlight any and all machinery used for

the purpose and explain what precautions are taken during the activity.

Ideally, most of the required information should be readily available with MEPL.

The Implementation:

IGI team visited MEPL to discuss the case in detail and explain why it was important to share the information. Open information sharing could help IGI design a tailor-made insurance product thereby reducing MEPL's exposure for a stable growth. After the successful initial meeting there was a regular follow-up over phone and email. Despite some hiccups MEPL management was generally welcoming and cooperative. Required details were shared with IGI.

Within two weeks of sharing the information request letter, IGI found that almost all the important information had been made available by MEPL. The company had a comprehensive strength esting protocol. A list comprising of all the in-house and third-party quality tests performed on the final product, was shared with IGI. The tests comprised of both destructive and non-destructive methodologies. Third party vendors who performed the tests were certified by internationally accepted agencies. Also, the in-house staff was sufficiently trained. MEPL had a well developedquality assurance department lead by a professional civil engineer with over 20 years of experience. The hierarchy of the department was very strong and any batch of poles went through multiple checks before it could be finally delivered to the client. MEPL showed various quality satisfaction certificates from reputable clients in the industry exemplifying that there was no compromise on strength and quality. As informed, in case of non-compliance to the acceptable test results, the whole batch at MEPL was rejected and wasted. Keen observation and quality checks were performed on batches produced thereafter.

MEPL employed one of the leading transportation service providers in the industry. The transporter was well experienced in the transportation of sensitive and fragile materials all over Pakistan. Transporter's profile highlighted that it had operated in terrains as rough as the "Khunjrab top" in Northern mountainous border of Pakistan and China. Considering the inherent strength of concrete it could be said satisfactorily that the transporter was capable of handling the task.

The fleet owned by the transporter comprised of world class vehicles manufactured specifically for the purpose. Jerk and shock absorbance capabilities ensured the safety of stocks inside the trucks.

It was informed that MEPL in close coordination with the transporter has developed a detailed loading/unloading SOP. The same document was shared with IGI which highlighted how skilled the on ground handlers are.

All these factors gave IGI the confidence to insure. Even after insuring, rigorous follow-up surveys ensured that things were in line with the best practices. IGI officials randomly visited the loading/unloading sites to monitor the process and reinforce safety.

Following all the rigorous risk management controls and close liaison between the parties, MEPL operates today with a good loss average. This is not only a contributin towards profitability of insurer and insured but also is significant in regards to installation of transmission and dispatch lines in Pakistan.

Reaping Mutual Benefits:

While IGI as an insurer enjoyed a year of loss free business with MEPL due to implementation of risk control measures; there were several benefits which were also cherished by the insured.

MEPL gained an insurance coverage for a particular line of business that was not initially welcomed by the insurance industry. Being a unique coverage, most of the insurance companies were reluctant to quote. However, working closely with the risk managers from IGI and sharing information openly, helped both parties better understand the risk further resulting into development of a risk mitigation plan and adequate insurance coverage. For a middle sized company like MEPL it would have been very difficult to start the project without the confidence of insurance at the back.

Rigorous questioning regarding the safety measures from IGI helped MEPL develop a strong database of all its standard operating procedures, emergency response and hazard management. While some of these plans were available in a vague format earlier too however presenting these to IGI required compilation of data in a much comprehensive manner covering all risk elements.

Going a step forward, MEPL digitalized these records for further reference and amendments in the future. Having all this safety documentation helped MEPL emerge as a very risk sensitive company and stand out of the competitors in the market.

Learning Outcome:

Insurance operations are pre-dominantly focused on complying with the underwriting guidelines and philosophy. On the other hand, the changing industry and innovation may require new insurance products not previously available in the market. Not being considerate of the changing demands of the industry, may be mistake on part of the insurance companies.

This case study has cracked a common myth that the best way to operate is to stick with the norms. Instead it has been established that extraordinary circumstances require extraordinary understanding and innovation of new insurance products. The insurers have to develop new products to cater for emerging customer needs. Innovation in industrial operations asks for innovation in insurance too. In fact insurers who think out of the box tend to attract the trendiest and most booming clientele.

Vigilant risk analysis by the underwriters in liaison with risk engineers can help offer coverage for any risk at all. Risks that are rare and unusual may be the most productive in terms of premium generation. Even claims can be controlled if adequate control measures are drafted and
implemented while taking the client into confidence.

As insurers, it is essential that underwriting guidelines are not used as a restriction and business repellant. With industries focused on their production boosts, insurers can show them the other side of the mirror by highlighting loop holes in safety measures and explaining how these loop holes could engulf all the profits. Drafting a clear cut improvement plan, in a very systematic and understandable manner; can make risk mitigation simple and practical. From real experiences it is confirmed that adequate information collection and analysis can do wonders. Insurers need to have a humble and convincing attitude where they can make the insured realize the significance of identifying the risk. Instead of acting as a stern inspector, insurance risk managers should present themselves as valuable consultants keen to improve the risk for insurer as well as insured. Listening keenly and speaking wisely can help resolve a lot of problems.

An insurance risk manager needs to provide innovative risk solutions for a win-win scenario! And the case discussed above is one citation of it

Testimonials from MEPL's General Manager:

"IGI's risk management services have proven to be a blessing in disguise for us. Before we started working closely with IGI, we never realized the true potential of safety and risk management. This was always considered a burden on the company finances. However, IGI was very prudent to builda strong case, a case that opened our eyes to new risks and mitigation planning. Our directors were keen and aware to act on the advice and develop detailed risk management plans.

Thanks to IGI, we devised comprehensive SOPs, evaluated our transporters and implement a stringent loading/unloading plan. All these factors made us stand out of the competitors and win several new contracts. Above all, I feel so glad to acknowledge that risk management efforts have steered us to increased profitability. We have gained the confidence of customers who are very concerned about business continuity and reliability. Our profit margins have significantly increased ever since we started working on risk management!

Our supply of Pre-stressed concrete poles to PESCO has been smooth and loss-free. We are delighted to see our business continuity and improved profitability."

General Manager, Manufacturing Excellence (Pvt.) Ltd.