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Technical Seminar on Contracting Methods and
Insurance Schemes for Fertiliser and Chemical
Process Industries

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EXPERIENCE OF INSURANCE IN INDIA*

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I. Introduction

The period after 1963 witnessed a major breakthrough in fertilizer production technology which was accompanied by an enormous increase in fertilizer capacities throughout the world. Large size single stream plants have come into being using reliable equipments and simplified design for achieving high on stream efficiencies.

The capital employed in such fertilizer production is so large that on stream factor is an important aspect reflecting the performance of the unit and hence its profitability or otherwise.

Most of the fertilizer factories process, inflammable, corrosive and hazardous liquids and gases, making the careful handling of them, a prerequisite for any successful operation. Factory operations needs a skill of a high order coupled with a sense of safety consciousness at every step.

In any large commercial operations of this kind, insurance organizations play a significant part and they come forward to indemnify loss of production arising out of fire, accidents etc. They also give insurance cover for, machinery breakdown, losses due to fire or accidents, loss of property and so on. General insurance activities in fertilizer factories are not uncommon in India and it commenced almost from the time fertilizer production started in large scale. But large involvement by insurance companies in loss-of-production-compensation is unprecedented and with promises of such involvement more and more in future.

Though it is true that insurance coverage well protects the valuable and sometimes scarce capital, the insurance company also is sometimes exposed to payment of large compensations. It is therefore natural that the insurance companies insist on the factory in following the normal codes and specifications in designing and operating its plants and equipments. They also emphasize on its authority for scrutiny wherever such scrutinies are called for.

This short paper describes various insurance covers offered in India for fertilizer factories with some examples of compensations allowed by them in recent past.

II. The following are some of the facilities offered by insurance companies in India for fertilizer factories.

- a. Fire and accident;
- b. Machinery breakdown;
- c. Loss of property;
- d. Production loss due to fire or accidents;
- e. Insurance premium rebate under special conditions; etc. etc.

a. Fire Risk

The Insurance Association of India has published rules and regulations to be followed by firms requiring insurance cover under this head. For specific installations the above publication clearly gives minimum requirements for designing a fire water system like, number of fire and foam hydrants, to be provided, quality of pipelines to be used, layout of hydrants for failure proof operations, type of fire alarms required, types of portable fire fighting equipments to be provided, staffing of fire fighting crew etc.

The layout of the fire water system designed by a contractor, approved by the insurance association, has to be cleared by the insurance company first before it is permitted to be constructed, also by a vendor in their approved roaster of contractors. The installation when complete has to be inspected and certified by them before it is commissioned. The installation when it is in operation will also be periodically inspected by insurance company to ensure its normal performance and up-keep.

Whenever the fire water system is taken out of service for repair or renewals etc., it is obligatory that prior approval is taken from the insurance company authorities.

There are several competent firms in India who can satisfactorily design and construct sound fire water systems in large fertilizer factory installations. Similarly there are also several vendors who can supply all safety equipments required, which are approved by Indian Standard Institution, National Safety Council and Insurance Association.

b. Machinery Breakdown Insurance

This facility provides for coverage of breakdown of machineries used in factory's production operations. Any number of machineries under this head, as required can be covered. It is the normal practice to cover only those critical machineries, whose failure could adversely reflect on production.

Some equipments that are covered in an ammonia-urea facility will include all the centrifugal compressors which have no spare, oil consoles of above major compressors CO₂ compressor motor drive, motors for high pressure recycle and ammonia pumps in urea plant, motors for ID fan and fluidizing cooler of prill tower, turbo acternator for captive power, generation etc.

Premium for above machineries are fixed as a percentage of its C.I.F. value, after the insurance authorities inspect the machineries for its quality and its proper installation.

When such costly machineries are included in the insurance cover, they insist on certain periodical check and preventive maintenance. As an example all large centrifugal compressors and turbines have to have the first open inspection after one year of its operation. After this first open inspection which is never exempted, subsequent open inspections are permitted once in two or three years of operation.

c. Loss of property

Raw materials, stores inventory, finished goods, empty bags, etc., come under this cover. Losses can be in the form of theft, breakage of pipelines carrying raw materials and their consequential loss, etc.

For this type of insurance, insurance clearance has to be got for the persons handling above items. Similarly, the security and protection staff along with security arrangements provided in the factory will be subjected to insurance company's scrutiny before the cover is accepted.

d. Comprehensive Scheme for Covering Production loss due to Fire or Accident

Prior to coverage as above, the insurance company's technical staff inspect all drawings and design documents of the factory, followed by inspection of actual installations to satisfy themselves that all design codes expected to be followed are strictly adhered to. The original inspection reports of pressure vessels and machineries installed in factory are also scrutinized by them for compliance of codes.

e. Premium rebate

Insurance companies allow for rebate of insurance premiums for certain risks, if company installs extra devices to increase the safety. Installation of water sprinkler system in bag storage building is one such item which allows attractive rebate.

III. Examples of compensation allowed

a. The factory consumes nearly 200 tonnes of fuel oil per day for its boiler plant. These are transported in tank trucks by road, each having a capacity of 10 tonnes, from an oil installation nearly 10 kilometres away from the factory. Oil transport goes on round the clock.

The transport of oil was contracted to a local contractor who hired private trucks from several owners, for the work. Certain trucks loaded with oil never reported to factory for unloading but drove away to other destinations and sold oil to other consumers. When this pilferage was detected, already losses amounting to a substantial value had taken place.

The actual quantity lost was calculated and insurance company made good the loss to the factory.

b. Repairs/replacements to pipelines, electrical installations, instruments etc., damaged as a result of a fire in ammonia plant, was compensated by the insurance company.

c. A high horsepower motor when it was lowered from its foundation for repair, fell down and got damaged beyond repair. Since an immediate replacement motor was not available, the factory remained shut down for ten days. The production loss to the factory was made good by the insurance company.

d. The sprinkler system in bag storage building in product ware house was installed months after the factory was commissioned. An attractive rebate on the premium for the above building was allowed soon after. The sprinkler was installed mainly in view of this attractive rebate.

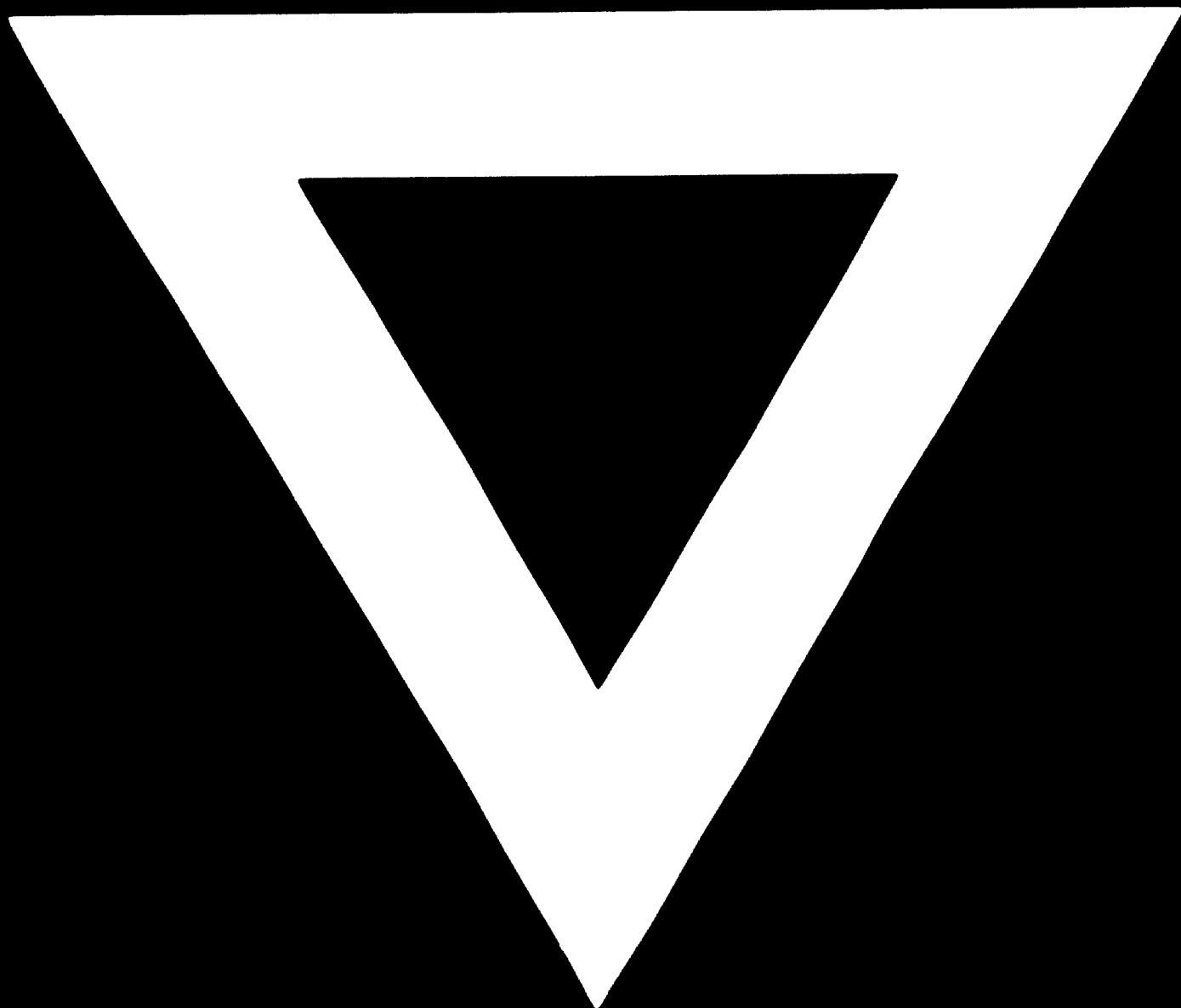
IV. Conclusions

Insurance coverages as explained above not only protects the investment of the fertilizer factories, but in actual practice, it is also seen that factories were able to run with better on stream efficiencies since the insurance coverages.

The insurance coverages involve matter of highly technical details. It is also necessary to have technical staff of high competence with large fertilizer experience and familiar with various design codes and specifications used in factories in the staff of insurance companies. Such an arrangement as practiced now will be in the interest of both parties.



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