## 2. Increased patent disputes involving NKK

From around 1995, patent disputes have occurred at a greater frequency between Japanese steel makers. Although most of these disputes were settled through negotiations, one of the disputes between Japanese steel makers was brought before court in May 1999. Kawasaki Steel Corporation filed a lawsuit against Sumitomo Metal Industries, Ltd. at the Tokyo District Court for damages of 9 billion yen (the 13%-chromium seamless tube case). This was the first litigation over patents between Japanese integrated steel makers. In October of the same year, NKK was sued by Nippon Steel Corporation for patent infringement in Tokyo district court (the PZB case).

Article 102 of the Patent Law was revised in 1999; these outbursts of litigation between Japanese steel makers were closely related to this revision of 102. In the PZB case, the amount of damages claimed was as great as 2.8 billion order to prevent imitations by other companies, and thus to increase the business income based on these rights.

One of the reasons for this oversight is that, in the past,

In addition, high-priority patent applications are closely scrutinized by two or more staff members of the IP Department. Thus, various measures are taken for realizing "strong patent management".

A high-priority application that is granted a patent right is designated as a "gold medal patent" by the IP Department, and notified across the company as NKK's proprietary strategic technology. Examples include: the waste plastics blast furnace feeding technology, hot-rolling sheet bar heater, the SUPER-OLAC for on-line accelerated cooling of steel plates, the ECOARC electric furnace for continuous melting of steel scrap, the DELTA EYE for automatic detection and marking of steel sheet surface defects, the WING PILE for ground piling with wingshaped circular plates on the tip, and DME as a new energy source.

The campaign for strategic patent application was implemented eight years ago, and by now has grown to a level schematically shown in **Fig.6**. R&D planning sections, researchers, engineers, and the IP Department are integrated for carrying out technological development that is strategically vital to the company. Recognizing intellectual properties as management resources, the directors are fully involved in this process and is actively using intellectual properties to expand the NKK's business. out in each technological cluster. However, company-wide organized activities for this purpose started at this time.

These activities were implemented under the name of "activities for patent approval", and have been continuously carried out to this date. At present, the activities are being routinely conducted for preventing infringement of rights of other cominermnts

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## 4.2 Patent approval activities

Intellectual property rights must be valued, and rights obtained by the company must not be infringed by others. Concurrently, NKK respects other company's IP rights, and shall not infringe them.

In 1996, when Japan was shifting to the pro-patent era, NKK started company-wide activities for ensuring that intellectual property rights of other companies were not mistakenly or inadvertently infringed by the NKK's business. Even before that time, these activities were carried