



P Madhavan, Photojournalist;
email: sonumadhavan@gmail.com

Visit to an Asbestos Mine

In Andhra Pradesh, there are asbestos deposits in Cuddapah, Kurnool and Mahabub Nagar Districts; however, the highest quality chrysotile is found near Pulivendla and Brahmanapalli in the Cuddapah District which is 400 km from Hyderabad. In Cuddapah, asbestos ore is obtained from underground workings. The mines here are semi-mechanized and employ board and pillar techniques. There are three asbestos mines in the area: the Saraswathi Brahmanapalli mine, the Andhra Pradesh Mining Development Corporation mine (which has been taken over by the owners of the Saraswathi mine) and the Saibaba mine at Ippatlaw.

I visited the Saraswathi Brahmanapalli mine, which is owned by Sri Y.S. Prakash Reddy, brother of Y.S. Rajashekar Reddy, Chief Minister of Andhra Pradesh. Interestingly,

the mine continues to operate even though its 20-year lease, granted on August 4, 1985, has expired. Under normal conditions, the average level of production is 690 tonnes per year.

From a mining engineer who agreed to show me around the mine and ore processing areas, I learned that the workings were quite extensive – covering nearly 200 hectares. He seemed unconcerned that the lease had expired 3 years ago: “They are in the process of acquiring a fresh one,” he told me. Until the new lease could be obtained mining activity was to be slowed and limited to selected tunnels. Apparently, the mining capacity had been reduced to around one tonne per day.

It turned out that around 100 people worked in the Saraswathi mine and milling units. All those working underground at the time of my visit were migrants from the Katni District of Madhya Pradesh. There were around 30 people working inside the mine at the time. Every year, fresh migrants arrive to work for some time in the mines and ore crushing mills. These workers hail from places like Bihar, Uttar Pradesh, etc.

I was surprised to be allowed inside the mine workings. Nevertheless, it was made clear that I should not take any pictures; to ensure that I didn’t, a foreman was summoned to escort me below ground. I gathered that the prohibition on photography was because the mineworkers were not supplied with any safety wear, such as helmets. In spite of this, I did manage a few shots.

I followed the foreman into the mine; in no time the sunlight penetrating the mine entrance could no longer reach us and our small yellow tungsten lights took over. In the gloom it was very difficult to make out the various activities within the mine. Descending further, I noticed tiffen boxes lying around a corner. On enquiring about the tiffens, a young worker confided that the miners took their lunch break inside the mine, since it was much cooler underground (outside the temperature was around 43°). This young person had the task of bringing in water and other required items from the outside whenever the need arose.

An air compressor was constantly pumping air into the mine from outside to maintain a constant supply of air for workers to breathe, notwithstanding the fact that the draft increased the dust level inside the mine.

I saw no evidence of personal protective wear, such as gloves, boots, or masks being worn by the miners; they were simply clothed: shirt, trousers and slippers, with only one I observed wearing a helmet. Most were carrying either picks or mattocks. I discovered that the workers lived near the mine and were paid around 80 rupees (2 dollars) per working day, with no payment for holidays or sickness. There was no medical facility either in the mine or the nearby mine office, apart from the customary first-aid box.



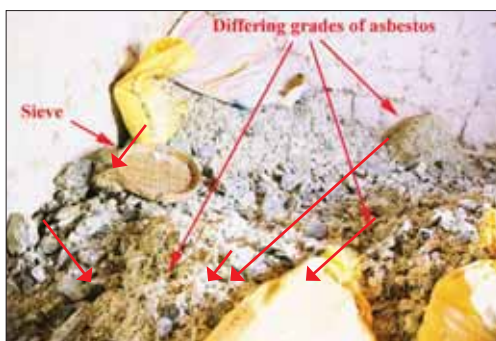


After being hacked from the asbestos-rich seams, the excavated lumps of ore are loaded into trolleys which are hauled from the mine mechanically. The ore is then dumped and allowed to dry out before being taken to the milling unit.

From the health standpoint, the milling of the asbestos ore and grading of fiber appeared to be the worst part of the whole operation. The primary activity inside the milling unit is to separate the asbestos fiber from encasing layers of Dolomite and Serpentine. Women from local villages break away the waste rock using small hammers then separate and grade the fibers manually, using sieves. To my dismay, when I entered the room where this process took place I found it deserted. In fact I could find not a single woman working anywhere in the unit. Questioning this, I was told: "Everyone went to attend the marriage nearby." However, I could see fresh dust all over the place.



"Women from local villages break away the waste rock using small hammers then separate and grade the fibers manually, using sieves."





Even though I was not able to see the grading process, I learned that the asbestos was divided as follows: A special (fibers over 1½ inches), then A (1-1½ inches), B (½-1 inch), and C (¼-½ inch). The grades A special, A and B, were the ones hand-picked by the women; the rest of the ore was crushed by machines operated by male workers to extract the C grade asbestos. Apparently, the best quality asbestos went to Hyderabad Industries and TVS Brakes while the low quality product was packed in sacks to be sent to industries manufacturing corrugated roofing sheets.

An Asbestos-Cement Factory

The State-owned Tamil Nadu Asbestos Sheet Unit, set up with a capital outlay of Rs. 26 million and located at Alangulam, Virudunagar District, commenced commercial production in October 1981; it is a subsidiary of Tamil Nadu Cement (TANSAM). The total capacity of the plant is 36,000 tonnes of asbestos-cement (AC) sheets per annum. It produces corrugated, semi-corrugated and plain

sheets of 1 meter to 3 meters length with a standard width of 1.05 meters and thickness of 6 mm. The range includes plain sheets and accessories.

The asbestos sheet unit achieved 94.50% capacity utilization in 2006-07. Gross sales in 2006-07 were Rs.183.2 million. This unit gives direct employment to 255 people and indirect employment to a further 700. The factory imports virtually all the asbestos it uses, mostly from Canada but also from Zimbabwe (as seen in the picture, below). Enjoying a high reputation in the market, ARASU brand AC sheeting is supplied to Tamil Nadu, Kerala, Pondicherry and parts of Karnataka.

I visited the Alangulam unit on May 3, 2008. Making my way to the area housing the crushing (grinding) mill, I observed that a large number of bags of asbestos were stacked in the vicinity. One operative, wearing no protective mask, had the task of feeding asbestos from the bags into this machine, which splinters the fibers prior to mixing with cement and fly-ash. As I moved through the factory, I noted that none of the workers wore protective gear; dust was to be seen everywhere, but I had no way of assessing how much of this was asbestos or of measuring airborne fiber levels.

During their lunch break the workers sat inside the plant to eat since there was no canteen or any other common area to accommodate them. After lunch, some workers also enjoyed a brief nap inside the plant. It was my impression that the contract workers would be most affected by adverse conditions since they were made to do more work than the permanent workers. There are many unions for the permanent workers but these seem more focused on salary structure than workers' safety and security.

During the production of asbestos sheeting at the unit, around 30% of the output ends up as waste, due to thickness problems, cracks etc; these waste sheets are dumped inside the factory perimeter. On enquiring the reason for stockpiling waste and cracked sheets, I was informed that some were given to needy people to make small shelters in nearby villages free of charge; others were picked up by factory employees, themselves. Some privately owned factories also tend to reuse waste material, unlike the Alangulam unit where no such facility is maintained. One can easily spot a large amount of asbestos sheets spilled all around the factory.

The factory has neither notices informing employees about safety measures nor any training program to instruct them how best to handle dangerous materials like asbestos. One person I spoke to in the factory admitted that he had no idea that asbestos fiber could be harmful. Another – a young contract worker – dismissed the risk saying "I am not going to die immediately, who knows what my future is." The monthly pay of contract workers is around 3000 rupees, a third that of permanent employees, who are well paid for the easier working conditions they enjoy. However, some of the young contract workers accept this disparity in the hope that one day they may be accorded permanent status. In the usual course of events it was necessary to bribe an official or be recommended by someone of standing to get a permanent position.





"During their lunch break the workers sat inside the plant to eat since there was no canteen or any other common area to accommodate them."