

Abuse in the Printing Supply Chain

An Investigation into Two Toner Cartridge Manufacturers in Zhuhai

Table of Contents

Executive Summary	3
1. Illegal employment of underage workers and overt recruitment discrimination	4
2. Employment practices in violation of labor laws	4
3. Inadequate health and safety training and a good working environment	6
4. Practices such as workplace psychological abuse and "management via punishment"	7
5. Lack of worker representatives	7
6. The impact of the COVID pandemic on workers' livelihoods	7
7. Factory discharges and environmental pollutions	8
8. Summary and Recommendations	8
Chart with Summary of Rights Violation	10
Mito Color Imaging Co., Ltd. (珠海美图科技有限公司) Investigation Report	11
Section 1: Recruitment and Resignation	13
Section 2: Employment Contract	19
Section 3: Working Hours	20
Section 4: Labor Remuneration and Benefits	21
Section 5: Conditions of Accommodation and Food	25
Section 6: Occupational Safety and Labor Protection	27
Section 7: Fire Protection	29
Section 8: Rewards and Punishment	30
Section 9: Others	30
Section 10: The Effect of the COVID Pandemic	31
Section 11: Environmental Impact	31
Zhuhai Chaojun Technology (珠海超俊科技有限公司) Investigative Report	34
Section 1: Recruitment and Resignation	35
Section 2: Employment Contract	36
Section 3: Working Hours	37
Section 4: Compensation and Benefits	38
Section 5: Conditions of Accommodation and Board	39
Section 6: Occupational Safety and Labor Protection	39
Section 7: Fire Protection	40
Section 8: Rewards and Punishment	41
Section 9: Others	42
Section 10: The effect of the COVID pandemic	43
Section 11: Environmental Effects	43
Appendix	44
1. Regulations on Disciplinary and Reward Actions in Zhuhai Chaojun Technology Co., Ltd. Employee Handbook	44

Executive Summary

The third-party consumables industry produces toner cartridges for laser printers, ink cartridges for inkjet printers, and ribbons for dot matrix printers, as well as other products. Critical to any digital device's printing process, ink, toner, and ribbon cartridges are purchased in high-frequency on markets around the world. According to Reportlinker, the Global Printer Market accounted for USD 42.35 billion in revenue for 2020. The pandemic has witnessed that people started stocking up on lockdown essentials. It is expected to reach USD 54.83 billion by 2026, registering a CAGR of 4.55% during 2021-2026.¹ Demand for cartridges has softened over the past decade, but the global market will remain large despite experiencing single-digit declines through 2025.

Today, factories in Zhuhai, China, a port city on the Pearl River Delta in China's southern Guangdong province, produce the majority of the world's third-party cartridges. Towards the end of the 20th century, China's first domestic third-party cartridge factories were established in Zhuhai, and since then the city has emerged as the hub of the country's printer consumables industry. Today Zhuhai has become a global industrial cluster of office equipment and consumables. According to *Yangcheng Evening News*, there are more than 680 companies producing and selling printing consumables in Zhuhai, and their production of color ribbons, compatible inkjet cartridges, and recycled laser toner cartridges account for 90%, 70%, and 30% of the global market share, respectively, with an annual output value of more than 43.5 billion RMB.²

Chinese factories producing third-party cartridges range in capacity from several thousand units per month to plants with a monthly capacity of millions of cartridges. The technological sophistication of these factories ranges from fully automated production lines to lines that rely exclusively on human labor. As one might expect, the working conditions at China's third-party cartridges factories also vary widely. Despite Chinese law, research conducted by China Labor Watch has found that labor rights protections are often ignored for the women and men staffing cartridge production lines at Zhuhai's cartridge factories regardless of size. Likewise, the sub-standard industrial hygiene and adverse environment of these factories are often overlooked.

As cartridge demand has fallen along with print volume in many major markets, Chinese third-party cartridge manufacturers have come under extreme pressure to remain profitable. The industry has consolidated and many companies have been radically reorganized and down-sized or they have been forced to go out of business altogether. As manufacturers desperately search for ways to cut production costs, working conditions in many of Zhuhai's third-party cartridge production centers have deteriorated. In 2021, China Labor Watch released a report based on an investigation on three third-party printer consumable companies, Zhuhai National Resources, Jingjie Printing Technology factory, and Zhuhai Maetone Infotech factory, which found a shockingly large number of labor violations. There are also

¹ Mordor Intelligence LLP. "Global Printer Market - Growth, Trends, COVID-19 Impact, and Forecasts (2021 - 2026)." *Www.reportlinker.com*, Aug. 2021, https://www.reportlinker.com/p06129748/Global-Printer-Market-Growth-Trends-COVID-19-Impact-and-Forecasts.html?utm_source=GNW

² "【香洲突围 何去何从】珠海：三大产业能否许香洲一个未来？_腾讯新闻." <https://new.qq.com/omn/20210409/20210409A0131200.html>

reports outside of China that certain firms in the third-party cartridge industry have violated environmental laws, including the industry giant Hubei Dinglong Corporation.

This time, China Labor Watch once again commissioned undercover investigator(s) to enter the two listed companies producing printer consumables in Zhuhai, hoping to further understand the status of labor rights and environmental impact of this industry. In total, investigator(s) interviewed nearly 60 factory employees during several weeks of undercover investigations at both factories. The investigation found the following serious violations in the areas of labor rights and environmental protection:

1. Illegal employment of underage workers and overt recruitment discrimination

The two factories under investigation employ underage workers illegally. Mingtu and Chaojun recruit underage workers who are over the age of 16. What's common for these factories is that underage workers are treated no different from adult workers. Like regular workers, they were required to work overtime and night shifts. According to the National People's Congress's interpretation of the Labor Law, (an enterprises need to) generally implement practices to shorten the working day for workers under the age of 18, and must not arrange for underage workers to work overtime and night shifts. The behaviors of the two factories present clear violations against the law.

In addition to employing underage workers, there exists overt ethnic discrimination in Mingtu's recruitment process. The recruitment agency made it clear that it would not recruit from four groups of ethnic minorities, including Tibetans, Uyghurs, Hui, and Zhuang. Investigator(s) have also seen cases where the employment agencies refused to introduce jobs to middle-aged Uyghur men from Qinghai. This practice violates Article 12 of China's Labor Law, which stipulates that "workers shall not be discriminated against in employment based on their ethnicity, race, gender, or religious belief."

2. Employment practices in violation of labor laws

During the undercover investigations and worker interviews in the two factories, the investigator(s) discovered a large number of employment practices that violated Chinese labor-related laws and regulations. These illegal practices adversely impacted the workers' quality of life by denying them actual earned wages and social security benefits. The investigator(s) also found that workers faced overworked conditions for extended periods of time. A worker reported: "This is the most tiring job I have ever done, and I have not slept enough for the past few days. I wish that I can take one day off a week and work (only) till seven or eight o'clock at night." The specific labor violations are as follows:

2.1 Long-term overwork and unpaid overtime

The factories have extremely high production targets, and when the daily production targets were not met, workers must continue to work overtime to complete the targets without additional pay. This has led to the long-term illegal behavior of overwork and unpaid overtime in the factories.

The production targets of each assembly line in the investigated factories were different. On some product assembly lines, workers were required to produce 7,000 products a day. Mingtu required workers to work overtime if their daily production targets were not met, and overtime under such conditions were not paid; workers often worked 12-14 hours a day, sometimes even more than 15-16 hours, with one day off per week. Their monthly actual overtime hours exceeded 96 hours. For Chaojun, the average work

hours are 13.5 hours per day, occasionally 15.5 hours, and there was no guarantee of even 10 hours of rest time per day. Only the hours worked after 10 p.m. were counted as paid overtime; There was only one day off a month, sometimes workers were not even offered a day of rest. It was difficult for workers to take a day off every 14 days. Overwork is very obvious, and the actual overtime hours per month exceeded 220 hours.

According to Article 41 and 44 of China's Labor Law, if the total overtime of a given worker exceeds 36 hours per month, they are entitled for overtime pay. However, both factories under investigation have vastly exceeded the overtime threshold under the legal definition, yet have not paid the overtime according to the law. The overwork and overtime labor violations in these two factories were critical, and the workers were generally required to overwork with little additional pay, creating a high-stress work environment that may cause unknown negative health effects to the workers.

2.2 Lack social security protection for temporary workers

Both printer consumables companies did not purchase social security insurance for temporary workers (or hourly workers), despite it mandated by law. Some labor recruitment agencies required temporary workers to purchase commercial insurance on their own. The factories purchased social security insurance for formal workers. These workers were also paid according to the minimum legal standard, but neither companies paid for the legally-mandatory housing provident fund for any workers. According to the Chinese Labor Law, "Housing Provident Fund Management Regulations," and other regulations, employers are required to provide five insurances and one housing fund for all workers who have established labor relations with the employers, and regarding this, there should be no difference between temporary workers or regular workers. However, neither companies investigated complied with legal standards.

2.3 Insufficient benefits such as paid annual leave/sick leave

Regarding sick leaves, the factories under investigation did not pay for sick leaves for temporary workers. Chaojun, specifically, did not pay for sick leaves even for its formal workers. Mingtu paid a certain percentage of wages for workers' sick leave. In terms of paid annual leave, temporary workers were not entitled to any annual leaves in these factories, and only Chaojun claimed that formally contracted workers can enjoy annual leave.

It is generally difficult for workers to ask for a leave as it would lead to discrimination to some degree. Procedurally, it was not complicated to ask for a leave in either factories, but both factories require reporting and applying in advance in writing with the leaders of two to three levels superior to the workers. Workers generally did not dare to ask for leaves frequently. The factory assembly lines had a fixed production target and if workers frequently took leave, it would affect the production capacity and they would be regarded as having a bad attitude. They could also encounter verbal abuse from the upper management and the possibility of being transferred to other positions or directly fired.

2.4 Non-standardized procedure in the signing of labor contracts and the lack of contract for temporary workers

Formal workers in both factories signed labor contracts. However, many of the labor contracts signed by the workers of Mingtu and Chaojun were actually legally invalid as some sections were left

blank in the body of the contract, and the contracts also lacked specific interests and obligations. Workers were required to sign the contract under the watchful eye of the HR, and were not given adequate time to read and understand the provisions of the contract. A copy of the contract was also not returned to the workers, an act that violates the labor contract and creates barriers for workers to file legal complaints when facing labor disputes.

For the **temporary workers** who were introduced by labor agencies, neither companies signed legal labor contracts with these workers.

2.5 Lack of transparency in salary structure

Chaojun did not issue payrolls to any workers. However, even as Mingtu provided a slip of paper with workers' monthly payroll, the calculation of workers' piece-rate wages is not specified. Workers interviewed were not sure how wages are calculated. The lack of transparency in wage compositions made workers unaware of product rates and the related wage standards, making them more vulnerable to the company's oppressive treatments. This practice also violates Article 6 of the Payment of Wages Tentative Provisions issued by the Chinese Labor department, which stipulates that "the employer shall provide the employee a payroll."

3. Inadequate health and safety training and a good working environment

The investigation revealed that none of the two factories provided adequate safety training. According to Article 13 of the Provisions on Safety Training of Production and Operation Entities, safety training for new employees of production and business units shall not be less than 24 hours.

At Mingtu, no training on production safety was provided. Instead, the company directed the workers to spend a few minutes copying the answers to a safety training test. And after which workers were put to work immediately. The same happened in Chaojun. The workers did not receive any training, and after the investigator(s) entered the factory and signed the contract they were put to work immediately without even uniforms provided.

Our investigator(s) found the lack of training especially concerning because of the potential dangers workers faced. Both companies failed to provide workers with a safe work environment, and workers often had to work under potentially dangerous environments without adequate amounts of sleep and rest.

Noise was a common issue. The workers at both factories generally reported that the noise on the production line in the workshops was as high as 100 decibels for extended periods of time, and the workers lacked corresponding noise-canceling protection gears; in order to ensure effective communications among the workers, management such as production line leaders or quality inspection would also require workers not to wear earplugs.

Chaojun workers also reported that the temperature for the operating machines in the packaging workshop was as high as 100 degrees Celsius, creating a risk of burns. The above can have long-term health effects for the workers.

4. Practices such as workplace psychological abuse and "management via punishment"

According to the International Labour Organization, psychological violence can be defined as "the intentional use of power, including the threat of physical force, physical violence, against a person or persons that may cause physical, mental, spiritual, moral or social development. Harm includes verbal harm, bullying, mobbing, harassment and threats."³

We found evidence of workplace psychological abuse in both factories. When workers went through medical examinations for the purpose of entering their position, the medical staff were rude, and did not treat the workers well. They often yelled at or verbally abused the workers, and presented as impatient; workers were also often verbally abused by team leader or supervisor at the assembly line. The investigator(s) also experienced some of the scoldings. In Mingtu, the assembly line manager often made demands on workers over their posture, and they were also reported to be abusive and threatening. The Chaojun workers also often received verbal violence and insults from the management of their assembly line. Some workers were scolded by leaders for being "brainless" and "having problems with their brains," and were even asked to work overtime alone until late at night as punishment; threats for dismissal were also made.

There are also harsh disciplinary practices among the factories under investigation. Mingtu had a list of different disciplinary items, including public notices of criticism, warnings, minor demerits, major demerits, and dismissal. If workers were late or violated regulations, they would be disciplined by line leaders and superiors. They could be assigned to marginalized positions and might even be forced to resign. Chaojun's employee handbook also lists a number of disciplinary regulations, some of which were clear, while others ambiguous. For example, what constitutes "bad conduct and immorality" was never clearly defined under these regulations. This allows the factories to take unfair disciplinary action such as terminating workers without compensation for being involved in strikes.

5. Lack of worker representatives

According to Article 7 of China's Labor Law, workers have the right to join or organize unions. But neither factories investigated had a union or an independent worker representative of any form; nor did they have an official channel to address workplace issues. Chaojun workers said that there is no labor union or worker representative in the factory, and they have never heard of the factory setting up a worker hotline. There was basically no way for workers to solve problems when they encountered them. The workers of Mingtu said that the factory had a "workers' representative", but when the investigator(s) asked about the representative, workers said that they were "just a display." The representative's only duty during their many years of employment was to report as a trade union representative when inspectors visit and inspect workplace issues. Mingtu also did not have a worker hotline.

6. The impact of the COVID pandemic on workers' livelihoods

Under the Chinese government's "zero-COVID" policy, the factories implemented strict COVID measures. Workers were required to wear masks throughout the workshops, and partitions were placed in the canteen. Health records such as health code and literacy codes were needed when entering and leaving the factory. Inspection of medical records has become the norm in the workplace.

³ Work-related violence and its integration into existing surveys, 19th International Conference of Labour Statisticians Geneva, 2-11 October 2013

Many restrictions on the factory's recruitment process were added following the pandemic, including a requirement for workers to present a negative COVID test report done within 24-48 hours prior to interviewing for the job. Meanwhile, the itinerary health code could not carry an asterisk,⁴ which increases the cost of finding a job for the workers. These expensive measures cost the workers extra time and money for COVID testing, and this increases the cost of off-site accommodation before entering the factory. On the other hand, if the workers were unfortunate enough to have traveled through areas with COVID cases in the past 14 days, it becomes nearly impossible to find employment before their itinerary code becomes normal, prolonging the periods of unemployment for the workers.

At work, the strict COVID measures – the factories often adjust their guideline to require workers to present a negative COVID test report daily based on the fluctuation of cases in the area – also meant that workers needed to spend more of their own rest time for testing in order to meet the factories' COVID requirements. In addition, the pandemic has also cost workers negotiating power in the job market, and workers became more cautious. Even when they encountered unfair treatment, they were more inclined to endure, and are less likely to complain about poor working conditions or unfair work or choose to resign due to these issues.

7. Factory discharges and environmental pollutions

The main sources of pollutants in the printing consumables industry are in the wastewater, toner dust and solid waste generated during the production of ink and toner cartridges. During the investigation, the treatment and recycling facilities for toner dust and solid waste in the workshop were observed. Investigator(s) also evaluated the impact of sewage pollution.

Based on the production, wastewater in the printing consumables industry was mainly generated when cleaning ink cartridges and old toner cartridges, and a large amount of organic matter visibly appeared to be present in the wastewater, which are environmental pollutants if left untreated. The emission of such wastewater must follow the Discharge Standard of Water Pollutants for Printing Ink Industry (GB25463-2010) issued by the Ministry of Ecology and Environment of the People's Republic of China. According to the test results submitted by the investigator(s) to a professional testing facility, the wastewater discharged from Mingtu and Chaojun contained levels of chemical oxygen demand, five-day biochemical oxygen demand, suspended solids, petroleum, animal and vegetable oils, aniline compounds that far exceeds the discharge limit set by the state. In other words, the companies release pollutants into the environment.

8. Summary and Recommendations

As mentioned, our investigation revealed numerous labor violations and illegal employment practices by two of the leading companies in the ink/printing consumable industry. These rights violations are listed in detail in the chart below. Moreover, Chinese workers were made even more vulnerable under the strict state and institutional COVID guidelines during the pandemic. The government's supervision over illegal activities in production enterprises was proven to be insufficient, and the authoritarian

⁴ Note: a person's itinerary code will carry an asterisk if they had traveled through cities with positive COVID cases the past 14 days

management and exploitative labor practices made it difficult to protect the basic rights and interests of the workers. We therefore make the following four recommendations.

1. Through this report, we call for Zhuhai Mingtu Technology Co., Ltd., and Zhuhai Chaojun Co., Ltd. under Dinglong Co., Ltd. to fully abide by China's labor law, and to provide all formally contracted and temporary workers labor contracts with all relevant terms and conditions that strictly follow legal guidelines, to voluntarily provide the worker with a copy of the contract, and to abide by all the terms stipulated in the labor contract. The company needs to give workers adequate paid annual leave and sick leave, provide adequate insurance and housing protections following the legal guidelines in full for each worker, and to provide payroll in order to establish a transparent salary structure. More importantly, both companies need to put an end to excessive overtime, to reimburse all workers for overtime pay that has been neglected over the past few years, and to provide statutory overtime pay for anything past the eight hours' mark. Said companies must cease setting high production targets and forcing workers to perform large amounts of unpaid overtime.
2. Both companies should provide a friendlier, safer work environment where workers' voices can be better represented. CLW calls for these companies to reflect on and to eliminate gender and ethnic discrimination in recruitment and frauds in safety training, to devise a real system to ensure workplace safety, and regularly provide workers with paid safety training on workplace hazards in order to ensure occupational safety and prevent work-related injuries. These factories must also put an end to workplace psychological abuse against workers and the "management by discipline" practice. They must also guarantee workers' right to democratically elect worker representatives, provide anonymous channels for worker complaints, and improve communications between management and workers. Under the pandemic, the factory has the responsibility to bear the cost of COVID prevention. However, companies should also minimize the additional economic burden for their workers due to their testing requirements, and avoid taking up workers' rest time for COVID testing.
3. Regarding the substandard test results found in the wastewater inspection over Mingtu and Chaojun, we call for the companies responsible to re-examine their wastewater recycling and treatment process and to invite a third-party agency to conduct independent testing, and to ensure that the test results are revealed to the public and community residents in a timely manner to prevent increase transparency and accountability. Both companies under investigation must pay close attention to the long-term impact of industrial wastewater, toner dust, and solid waste in the ink/printing consumables industry on the environment and to workers' health and safety, increase and improve treatment facilities, and regularly publish monitoring results to the public.
4. Finally, we continue to call for the companies and online marketplaces that source printing supplies from these factories, including all contractors and subcontractors in the manufacturing process, to require their manufacturers and all businesses involved in the supply chain to strictly abide by labor standards and conduct regular inspections monitoring progress. Periodic undercover investigations and inspections must be performed to ensure timely corrections when labor and other relevant regulations are to be violated, with a real commitment to improving

working conditions. Online marketplaces must strengthen regulation of companies that violate workers' rights and prohibit repeat offenders from using their platforms for profit. We hope that the ink/printing supplies industry and major online retailers will join us and take these recommendations seriously as we all want to eliminate labor rights infringement in the industry supply chain. We also call for the Chinese government to strengthen the protection of the rights and interests of Chinese workers, strictly enforce labor laws, increase penalties for violations of labor laws, form a real deterrent to enterprises, and to strengthen industry supervision mechanisms.

Chart with Summary of Rights Violation

	Mingtu	Chaojun
Gender/ethnic discrimination in hiring*	X	
Illegal employment of students from vocational schools or underage workers*	X	X
Disrespecting workers' will to choose their jobs	X	
Disrespectful or bullying behavior towards workers	X	X
Harsh disciplinary actions	X	X
Excessive productivity targets	X	X
Excessive overtime*	X	X
Unpaid overtime*	X	X
Non-transparency over wage structure	X	X
Illegal contracts*	X	X
Lack of contract for temporary workers*	X	X
Workers' lack of possession of a copy of their labor contract*	X	X
Unpaid wages under the conditions of "self resignation," requiring application for resignation*	X	X
Lack of 24 hrs of safety training*	X	X
Lack of protection gears*		X
Failure in providing insurance in accordance to the law*	X	X
Difficulty in getting a leave*	X	
Unpaid sick leaves*	X	X
The lack of or low numbers of paid annual leaves*	X	

Lack of entertainment facilities	x	x
Bad workplace environment	Noise	Noise and heat
Lack of independent workers' representative and organizing	x	x
Lack of effective channels for complaints	x	x
Failing inspections over industrial wastewater*	x	x

(Note: "*" represents a violation of China's Labor Law and other relevant laws)

Mito Color Imaging Co., Ltd. (珠海名图科技有限公司) Investigation Report

Brief Introduction of Company

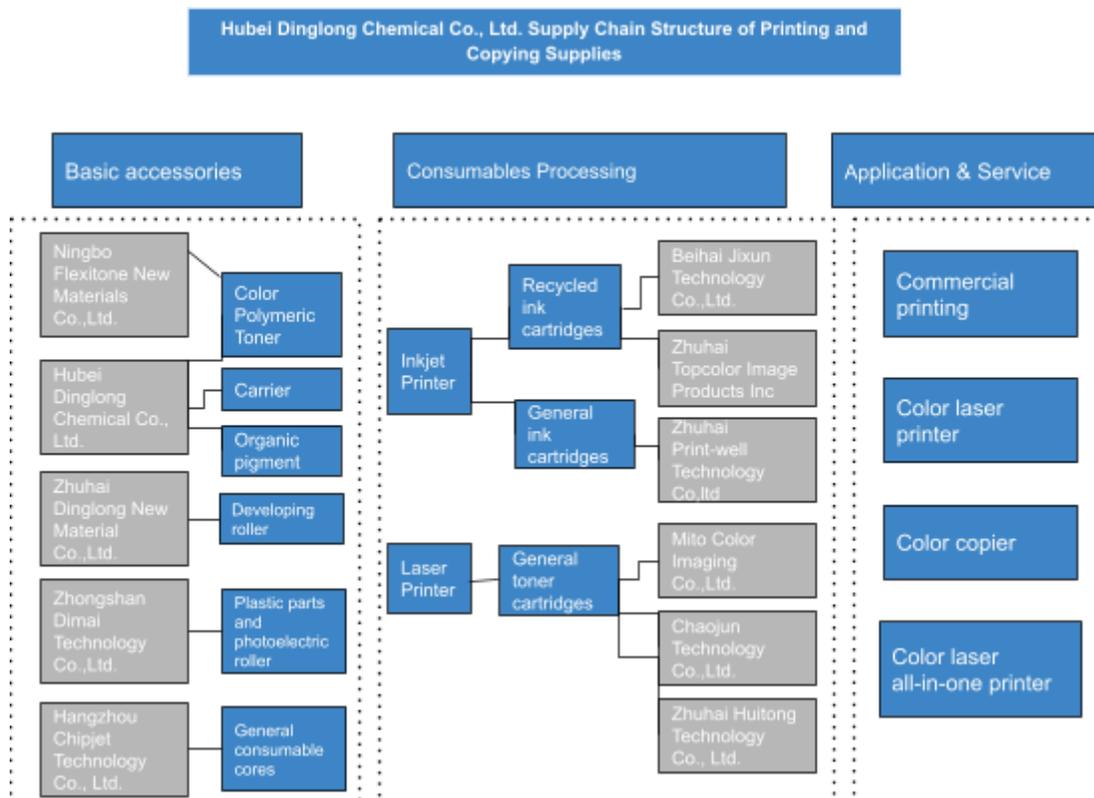
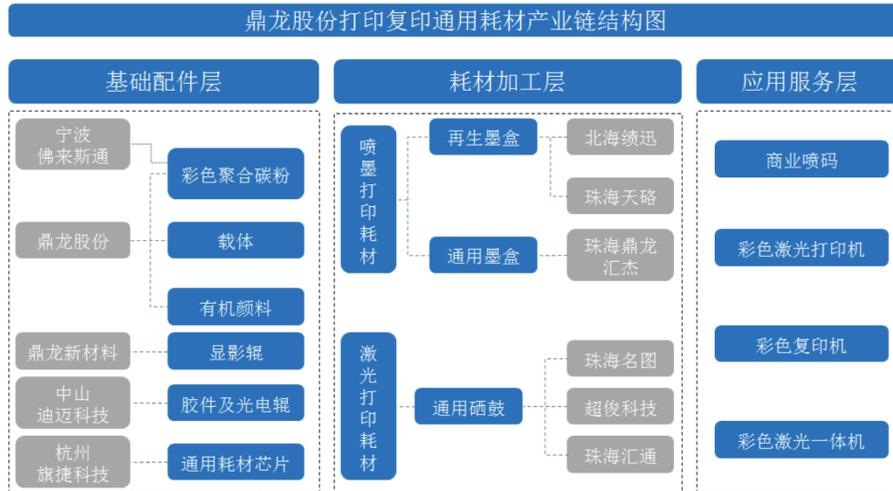


(The building on the left is the factory. The first floor is storage space and the second floor is assembly and packaging space. The building in the middle is the office building.)

Mito Color Imaging Co.,Ltd, which also does business as Zhuhai Mingtu Technology Company, is a wholly owned subsidiary of Hubei Dinglong Chemical Co., Ltd. Hubei Dinglong is a company listed on the Shenzhen Stock Exchange and its shares trade under securities code 300054. The Wall Street Journal puts Hubei Dinglong's market cap at RMB 20 billion. Hubei Dinglong had total sales of RMB 2.3 billion in fiscal year of 2021, with a net income of RMB 214 million. About 85% of Hubei Dinglong's products are targeted at the digital imaging industry and it is now also actively venturing out of this industry.

Hubei Dinglong was established as a specialty chemical company in Wuhan province in 2000. Initially, the firm produced highly engineered products such as colorants for automobile paints and resin-based inks as well as other applications. It moved into the digital imaging industry after successfully manufacturing pigment dispersions and other high margin components for producing the inks and toners used in printers and copiers. In time, Hubei Dinglong Chemical began marketing bulk toners for China's

growing third-party supplies industry. Over the past 10 years it has also acquired several of China's largest third-party ink and toner cartridge manufacturers, including Mito Color Imaging and Zhuhai Chaojun Technology, which both produce toner cartridges and we investigated for this report. Hubei Dinglong has indicated that business has been down at both its toner cartridge subsidiaries and it was forced to write off nearly RMB 500 million in goodwill impairment because of their lower-than-expected sales numbers



(A graph on the printing supply chain of Hubei Dinglong Chemical Co., Ltd.⁵)

Mito Color became a wholly owned subsidiary of Hubei Dinglong in 2013, and is a major producer of all-in-one laser color toner cartridges in China. The firm's cartridges are compatible with products of more than 200 models of printers from brands such as KonicaMinolta, Epson, Dell, Xerox, OKIdata, Brother, and HP. Besides the office building, the factory space includes areas for storage, assembly, and packaging. Components such as toner, carrier organic pigments, developer sticks, etc. are shipped from other Dinglong subsidiaries, and are processed here into toner cartridge/all-in-one cartridge.

While its manufacturing is done exclusively in Zhuhai, Mito Color's main markets are North America and Europe. The firm operates a warehouse in the Netherlands along with sales offices in the U.K. while most of its North American business is managed through organizations in Hong Kong, Zhuhai, and other Chinese cities. Mito's products are mostly sold through office equipment dealers and resellers. Most end users are office workers at small to medium sized businesses, such as hospitals and manufacturing plants. The firm also sells to governmental agencies like school departments and city administrators.

Although Mito Color's business has improved somewhat, revenue for the company has declined sharply between 2015 and 2019. As noted, Hubei Dinglong wrote off millions of RMB in goodwill impairment related to the company. In its recent financial disclosures, Hubei Dinglong has indicated that Mito Color's revenue is up. It appears that Mito has slashed the price of its products to grow its market share. Margins are under pressure as cartridge production has outpaced revenue growth. The firm also faces increased costs related to raw materials and transportation. As a result, working conditions at Mito Color's factory have deteriorated.

Factory Basic Information

Company Name: Mito Color Imaging Co.,Ltd.

Address: Jinfeng Xi Road No.15, Jin Ding Technology Industrial Park, Tangjiawan, Xiaozhou District, Zhuhai City, Guangdong Province

Total Number of Employees: 900⁶

Number of workers: 500 (estimate)

Total Number of Workers During Peak Season: about 700 (estimate)

Male to Female Ratio: 1:1

Number of Interviewees: 24

Ratio of Male to Female Interviewees: 15:9

Section 1: Recruitment and Resignation

There were two modes of recruitment at the factory. The first was the recruitment of temporary workers through labor recruitment agencies. The hourly rate for these workers was 17 RMB. The applicant needed to provide a bank account with a personal ID, and the wage would be paid through their labor recruitment agency. The temporary worker only needed to prepare a card associated with the bank account and their ID card to enter the position.

⁵ Source: Hubei Dinglong Chemical Co., Ltd. 2021 Mid-year Report
<http://static.cninfo.com.cn/finalpage/2021-08-19/1210778835.PDF>

⁶ <https://www.zh-hr.com/m/companyDetail/F9AFEB4F6BF13BCC77A8B740457E4DBA>

The second mode was the recruitment for formal workers. The applicant could come to the factory entrance to request an application form and a checklist of all the required documents. When all the documents on the list were provided, the applicant could show up the next day at 8:25 AM to the factory entrance and wait for staff at the HR department to lead them to a job interview. The documents included the original copy of a Chinese citizen ID and a copy, a physical examination record, an ID photo, a debit card, and personal items such as lunch boxes and water bottles. There was no detention of personal ID. The physical examination fee was 110 RMB and could be reimbursed after three months of employment.

There was blatant discrimination based on ethnicity in the recruitment practices of the labor recruitment agencies. The agencies made a notice of “四大民族已满” (filled for the Four Ethnic Groups), meaning that Tibetans, Uyghurs, Hui, and Zhuang ethnic minorities were excluded. The investigator(s) has witnessed one labor recruitment agency declining the application of a Uyghur man. The reasons given were 1) the concern of communication problems due to language differences and 2) the use of pork and pork oil at the factory cafeteria and no preparation of muslim food. The recruitment of formal workers by the factory, on the other hand, would not specify ethnicity and age, but the whole factory had no employees from the four ethnic groups above.

The factory stipulates that any individual of the age of 16 or older can be recruited. Investigator(s) met several 17-year-old workers; their job assignments were similar to other workers. During the investigation, the investigator(s) did not find any student workers or vocational school interns/trainees, a common practice among Chinese factories rife with labor abuses.

The factory held no formal recruitment training. The so-called safety training was for the newly employed to spend several minutes copying and pasting the answers of a training test. The actual training related to production skills was conducted by the production line leader according to specific production activities. Usually each individual was responsible only for several simple, repeated actions that only take minutes to complete. There was a high workers turnover; and the company was not willing to increase the training cost. Usually, experienced workers were responsible for more difficult operations, and the repetitive, easier tasks and those that need physical strength were assigned to new workers. A new worker could participate in the production on the first day of their employment.

The probation period was three months. During these three months, all workers were considered temporary. Only after the first three months could a worker be switched to a formal status. Within the three months, if an individual was fired, their wage would be calculated according to work hours. Those who resigned within three days after recruitment received no pay. If workers decided to stay for longer than three days, wages were calculated starting the first day of recruitment. If an individual wanted to resign, they needed to submit the application three days prior to the resignation. The application needed signatures from three leaders before it was able to be sent to the HR department for approval. Most people were discouraged by this complicated resignation procedure, and chose to leave directly and thus forwent their owed salaries. The factory stipulated that if workers left their job within one year, the cost of uniforms would be deducted from their salaries. If workers also requested shoes, bottles, and other items, fees for these would also be deducted. There were summer uniforms and autumn uniforms, each under 100 RMB. The monthly salary was paid monthly on the 18th. During the contractual period, an individual

needed to submit resignation 30 days in advance. After resignation, the salary of said month would be paid in the following month. No unpaid or under-calculated wages were found during the investigation.

入职登记表

FW-124/A1

填表日期: _____ 应聘岗位: _____ 工号: _____ 入职日期: _____

个人基本信息							
姓名		性别		出生年月		民族	
籍贯		健康状况		身份证号			
婚姻状况		子女情况		身高	CM	体重	KG
现联系地址(可邮寄)				最高学历			
本人联系电话		电子邮箱		政治面貌			
紧急联系人		与本人关系		紧急联系人电话			
户籍地址							
户籍类型: <input type="checkbox"/> 本市城镇 <input type="checkbox"/> 本市农村 <input type="checkbox"/> 省内城镇 <input type="checkbox"/> 省内农村 <input type="checkbox"/> 省外城镇 <input type="checkbox"/> 省外农村							
家庭成员							
姓名	关系	任职单位	职位	联系电话			
教育背景							
学习时间(起止日期)		学校		学历		专业	
年 月 至 年 月							
年 月 至 年 月							
工作经历							
时间(起止日期)		任职单位		职位		证明人/联系方式	
年 月 至 年 月							
年 月 至 年 月							
年 月 至 年 月							
技术职称/资格							
时间(起止日期)		发证机构/培训机构		技术职称/认证/培训内容			
年 月 至 年 月							
年 月 至 年 月							
重要信息							
与原单位关系: <input type="checkbox"/> 在职 <input type="checkbox"/> 已解除劳动关系		近三年内是否患过严重疾病或慢性疾病? 如有请写明: _____ 是Y□ 否N□					
是否与其他单位存在竞业限制条款协议: 是Y□ 否N□		是否在原单位有违纪, 处分? 是Y□ 否N□					
约定竞业限制条款或协议的单位名称为: _____		曾经被解雇过吗? 是Y□ _____公司 否N□					
曾有无犯罪记录? 是Y□ 否N□		在本公司是否有亲属? 是Y□姓名: _____ 关系: _____ 否N□					

本人谨此声明保证: 1、人事登记表内所有资料均属实有效, 如公司查出任何信息与事实不符, 本人同意在在职期间的任何时候均可被公司视为严重违反诚信原则及公司的规章制度, 公司可以立即解除劳动合同且不支付经济补偿金。2、本人保证已与原单位解除劳动关系, 且不带原单位的商业秘密到公司, 如因与原工作单位的劳动合同和商业秘密问题出现法律纠纷, 本人愿意承担一切责任。3、公司已如实告知工作内容、工作地点、工作条件、职业危害、安全生产状况、劳动报酬、作息时间以及本人要了解的情况。4、本人确认以上所填写的地址、电子邮箱为邮寄送达地址, 公司向该地址发送的任何文件或物品, 如发生收件人拒绝签收或者其他无法送达的情形, 本人同意, 从公司寄出之日起视为公司已送达。

部门负责人: _____ 声明/填表人签字: _____

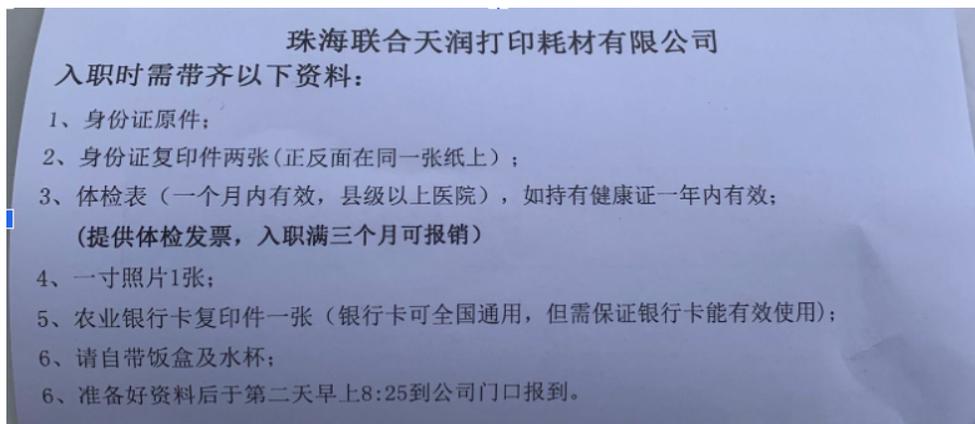
_____年____月____日

(Application form translated below)

Application Form							
Date		Position		Employee ID		Date of Employment	
Personal information							
Name		Sex		Date of Birth		Ethnicity	
Place of Birth		Health Conditions		Citizen ID			
Marriage		Child		Height		cm	Weight kg
Mailing Address				Education			
Phone		Email		Political Affiliation			
Emergency Contact Person		Relation to the applicant		Emergency Person			

				Number	
Place of Birth Address					
Place of Birth Type: <ul style="list-style-type: none"> ● Urban Zhuhai ● Rural Zhuhai ● Urban Guangdong ● Rural Guangdong ● Urban area in another province ● Rural area in another province 					
Family Members					
Name	Relation	Company	Position	Contact Number	
Education Background					
Program Period		School	Level of Education	Major	
MM/YYYY TO MM/YYYY					
MM/YYYY TO MM/YYYY					
Work Experience					
Period		Company	Position	Contact Person and Number	
MM/YYYY TO MM/YYYY					
MM/YYYY TO MM/YYYY					
Technical training					
Period		Training/ Certification Institution	Title/ Certification/ Training Content		
MM/YYYY TO MM/YYYY					
MM/YYYY TO MM/YYYY					
Important Information					

Relation to the previous employer: <ul style="list-style-type: none"> ● Currently employed ● Labor relation terminated. 	Have you had any severe or chronic disease in the past 3 years? Y _____ N _____
Have you signed any non-compete agreement with other employers? <ul style="list-style-type: none"> ● Y ● N 	Have you broken any rule at previous workplaces? <ul style="list-style-type: none"> ● Y Company: _____ ● N
Name of the company that you signed non-compete agreement: _____	Have you ever been dismissed? <ul style="list-style-type: none"> ● Y Company: _____ ● N
Have you committed any crimes? <ul style="list-style-type: none"> ● Y ● N 	Do you have any relatives in our company? <ul style="list-style-type: none"> ● Y Name: _____ Relation: _____ ● N
By signing this form, I agree that: <ol style="list-style-type: none"> 1. All the information above is correct. If the company finds any false information above, I agree that the company can dismiss me from the position at any time as a breach of the company's codes of conduct. The company can terminate the labor contract without paying any severance payment. 2. I confirm that I have terminated the labor relation with the last employer and will not bring any confidential information from the previous employer to our company. If there is any legal dispute between my previous employer and the company, I will take full responsibility. 3. The company has notified me truthfully about the tasks of the position, the location of work, working conditions, occupational harm, production safety conditions, compensation and payment, work hours, and any other information that I need to know. 4. I confirm that the mailing address and email address are valid. If any document or item delivered to the address is declined or lost, I consider that the items arrive on the date of delivery. <p style="text-align: center;"> Department manager: _____ Applicant: _____ Year Month Date </p>	



Employment required documents for Zhuhai Union Tianrun Print Consumable Co.,Ltd., translation below:

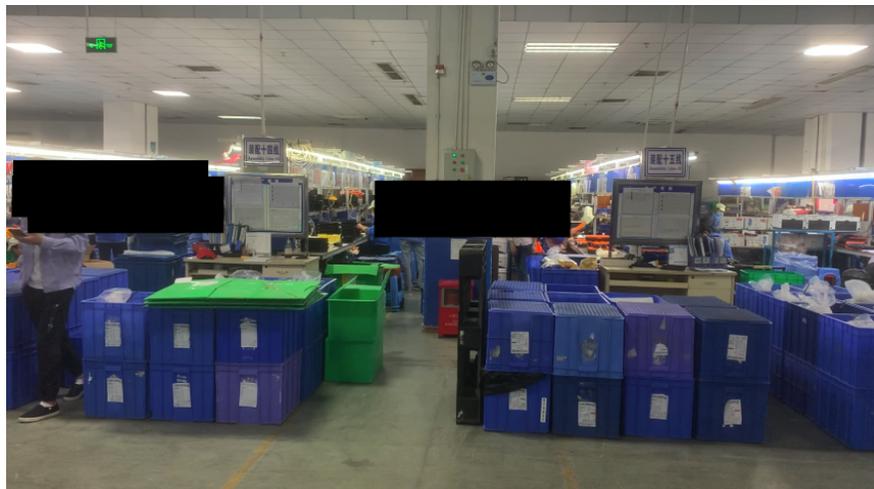
Zhuhai Union Tianrun Print Consumable Co.,Ltd.

Prepare the following documents for employment:

1. Citizen ID original document
2. Two copies of the Citizen ID (on both sides of one piece of paper)
3. Physical examination record (within a month at a hospital above the county level), or the health certificate effective in one year;
(If receipts are kept, the cost of the physical exam may be reimbursed after three months of employment)
4. An ID photo
5. A scanned copy of Agricultural Bank of China debit card
6. Your lunch box and water bottle.
7. Please prepare all the documents and arrive at the company at 8:25 AM the next day.



(Workers waiting at the Agricultural Bank of China near the factory to create a bank account. The common wait time was 2 to 3 hours.)

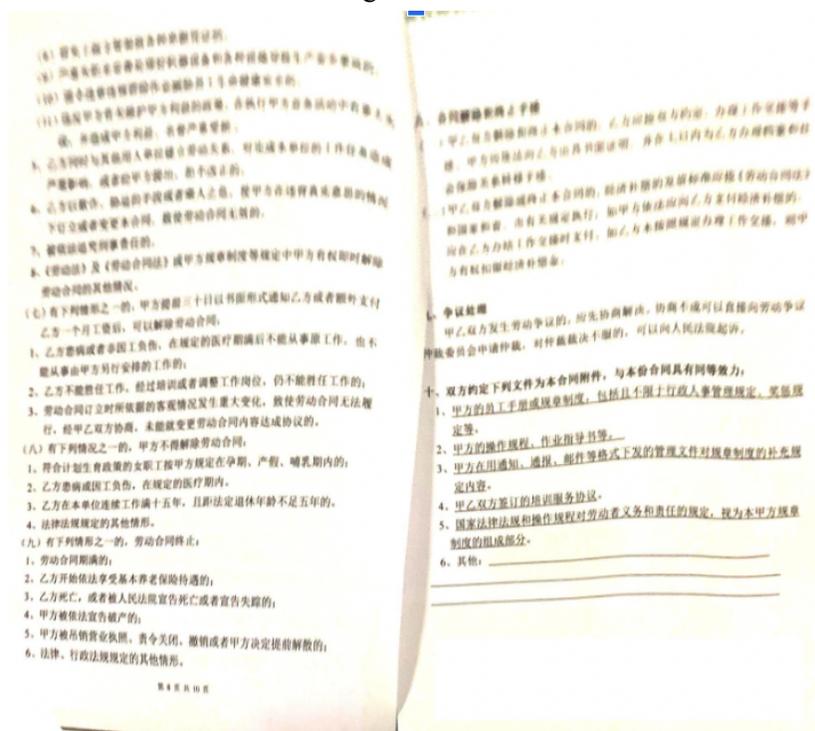


(Production scene: those in yellow hats were line leaders and production supervisors; those in red hats were quality control workers, and those in white hats were regular workers.)

Section 2. Employment Contract

On the day of employment, the factory arranged for workers to sign labor contracts. After the company issued the labor contract, the workers, watched by the HR personnel, were asked to sign it as soon as possible. **Applicants, including the investigator(s), did not have time to read the labor contract carefully.** This meant that the workers would not be able to watch the company's practices based on the knowledge of agreed terms. According to HR, the signature of the company's legal representative could not be completed on the same day that workers sign the contract, but employees could request a copy one month after employment. But in fact, very few workers would go to the office building to request a copy from the HR. **Temporary workers did not sign labor contracts.**

At the same time of signing the labor contract, the company also required workers 1) to sign an occupational hazard notice; 2) to take an occupational disease prevention and control exam, the answers of which were given; 3) to sign an anti-fraud notice; 4) to sign the employee handbook notice; 5) to take a job orientation exam; 6) and to fill in a safety education registration form and safety educational exam paper (with answers attached). For the notices and exams above, no explanation in detail was given from the company. Neither did the workers have enough time to read them in detail.



(The HR did not allow time for workers to read the contract, so the investigator(s) just took a quick photo of it.)

Section 3. Working Hours

The normal working hours for workers were 8:30 AM to 17:30 PM every day (Same during the off-season). However, because the vast majority of workers were piece-rate workers, **they had to work**

overtime if their production was not up to the mark, and the overtime was not paid under such conditions. Workers worked six days a week with one day off, with a maximum of three to four days off per month. During the peak season, weekly rest days might not be available. **Only on weekends were workers exempt from overtime, but it was possible for them to work overtime until 10-11 pm on weekdays.** Working hours might exceed 15 to 16 hours per day. Overtime becomes more frequent than usual starting in September, as factories usually have to rush at the end of the year.

For each production line, the department assigned tasks to the production team leader/line leader, and the line leader arranged whether to work overtime and the overtime hours. If the production line was moving fast enough, overtime could be reduced. If a production line receives orders that were difficult for workers to complete, workers might work overtime until very late and still got paid the same as workers in the production lines that did not require overtime. Workers could hardly choose. Because the pieces were counted with the entire production as a unit, if some people worked overtime and some didn't in the assembly line, it became difficult to assign tasks. **It might also cause the dissatisfaction of the production line leaders if workers asked for a leave, leading some to be marginalized (transferred to worse positions) or laid off.** There was a high turnover of workers in the entire production; the out rate of disobedient workers is very high during the first three months of employment. In terms of leave, departing without applying for a leave or without approval and failure to return in time after the leave were considered absenteeism. Three days of absence from work or six days of annual absence from work was regarded as automatic resignation.

The factory used a fingerprint punch-in and punch-out system to record the working hours of each worker. For overtime, workers filled in the overtime schedule and signed. But in fact, unless it was a worker recruited through a labor recruitment agency and they were earning wages on an hourly basis (17 RMB per hour), overtime is calculated as normal pay. The factory adopted a long daytime work schedule; there were no day/night shifts. One day off out of every 14 days could be guaranteed for most of the cases, and most of the time there were at least 10 hours of rest every day. But it was very common to have no rest during holidays, and **there was no doubling of wages for official holidays, which is legally mandated.** Lunch break was 1 hour (12-1:00 pm); dinner break was half an hour (5:30-6:00 pm).

The factory has its production goals, which varies according to the product line. Usually the high-end toner cartridge assembly line has a daily output target of about 600 pieces. The domestic toner cartridge assembly line has the target of about 2,000 pieces. The toner cartridge packaging line produces about 4,000-6,000 pieces. The speed depends on the requirement of each order and the proficiency of the workers on that line. There were on average 10 to 15 people on each production line. The line with the fewest workers has 5 people. **Workers had a fixed schedule of going to work at 8:30 AM, but the time off was not fixed. Generally, it was common to work overtime until 9-10 p.m. depending on whether the daily production target was reached.**



(Left: The end of a product line. Right: The packaging shop floor)

Section 4: Labor Remuneration and Benefits

The pay day was usually the 18th of each month. Workers recruited directly by the factory (piece rate workers) were paid directly by the factory; those hired through agencies (dispatch workers, temporary workers) were paid by their agencies, which could be delayed by 1-2 days. No apparent arrears of wages were found. **The average salary was 4000-5000 RMB per month.** There were two wage calculation methods written in the payroll, namely, the time-based rates and piece-based rates. The wage based on work time is usually less than that based on the number of pieces. However, the work-time-wages was for reference only, and the payment of formal employees was primarily based on piecework. The company listed time-based wages, probably as a means to encourage employees to work longer hours in order to increase piece-rate wages, and to evade the regulations on overtime pay. The payroll also included social insurance payment for formal workers: 320.44 RMB was deducted per month from their salary. However, the housing provident funds were not included. The factory did not pay for the five social insurances and the housing fund for the temporary workers. Therefore the workers did not need to pay their part either. There was no wage deduction for meals, but there was no additional subsidy for workers who did not eat in the cafeteria either. If a worker did not live in the factory dormitory, they received a subsidy of 1 RMB per day, or 30 RMB per month.

No extra pay is calculated for workers who work overtime. On average, for each month, a worker's overtime hours on weekdays is about 60 hours and 61 hours per month on weekends. **The total overtime hours was, on average, 121 hours per month. The actual monthly overtime hours far exceeded the legal limit of 36 hours. But their average monthly salary was only about 4,100 RMB.** There was extremely low transparency in terms of wage calculation, and the system of compensation could only be understood based on workers' experience.

1) Piece-based calculation: each piece from a high-end line was worth 4-5 RMB, and each piece from a low-end line was worth about 1 RMB. They were divided equally among the 11-14 workers in the production line. Most workers needed to work overtime to meet production goals. Overtime pay was likewise calculated based on the number of pieces. 2) Hour-based calculation: the normal wage for hour-based workers was 16-18 RMB. **Regardless of whether it was piece rate or hour rate, overtime work was not calculated as its own category on the payroll.**

For sick leave, there was no paid leave for hour-rate workers. The piece-rate workers had paid leave, but they would not receive the full attendance bonus of about 200 RMB for the month. Because the salary of each piece-rate worker was calculated by the pieces produced at the whole line, the worker could feel pressure to never ask for a leave, as it would impact the progress and pay of all the workers on the line. If the sick leave or personal leave exceeded three days, the line leader might find the worker to have a bad attitude. As a consequence, there was a risk for them being switched to other lines. If sick leave or personal leave was not approved but the worker in question leaves anyway, it would be considered absenteeism. There was no pay for absenteeism, and 6 days of absenteeism within a year is regarded as automatic resignation.

Workers say they have never had paid annual leave, maternity leave, or marriage leave. One worker said: "Only office workers have these paid leaves; piece-rate workers do not enjoy those benefits." In addition, in terms of salary, benefits, holidays, etc., the employees on management or product design had very different benefits compared to manual workers. The production workers had never received any holiday gifts and the like. Workers could choose to work or not to work on official holidays depending on the production plans, but piece-rate workers (regular workers) and hourly workers (temporary workers) did not have overtime pay for work on holidays. Instead, they were still paid according to hours or piece-rate. If the factory needed to recruit hour-based dispatch workers during the holidays, the agencies would generally negotiate with the factory to increase the wage, and 230 RMB per day was usually the highest price.

In terms of recreational facilities in the factory, it was said on the job ad for management and administrative staff that there is a library and a gym. But workers in production, including someone who has worked here for more than a decade, did not know where the library was. It was also said that these facilities could be in the office building, but the building is not open to assembly line workers. The workers' life is simply confined between the workshop and the dormitory.

Hour-based payment										Piece-based payment			
Attendance Days	Work hours	Payment for work hours	Overtime hours on weekdays	Overtime payment	Weekend overtime hours	Weekend overtime payment	Official holiday hours	Official holiday payment	Total Pay-ment	Piece-based pay-ment	Deduction of merit pay	Other deducti on	Total pay-ment

(Payroll–Personal information is hidden and edited to protect interviewees.)

Differences between temp workers and formal workers:

	Manual workers (production team leaders, line leaders, and Quality Control workers)		Office workers
	Dispatch workers (hourly workers)	“Formal employee”	
Percentage	10% of the manual workers	90% of the manual workers	–
Channels of entry	Labor agencies	Application forms at factory gate	HR, campus recruitment, or online job platforms
Required documents for employment	Citizen ID card and bank card	Citizen ID card (original and copy), bank card, physical exam record, and an ID photo	Citizen ID card (original and copy), bank card, physical exam record, and an ID photo
Calculation method of wage	16-18 RMB per hour; About 230 RMB per day for special positions in the peak season	Based on pieces; 1-5 RMB per piece; Divided among all the workers on the line	A monthly salary, and additional bonus and dividend
Overtime work pay on weekends and holidays	16-18 RMB per hour	No overtime pay, pay based on pieces	Rest on official holidays
Paid leave, marriage leave and maternity leave	NO	NO	YES
Library	NO	NO	Yes. A library is said to exist in the office building on the job advertisement toward office workers.
Social insurance	NO	Covered except for the Housing Provident Fund. 320 RMB is deducted from the monthly salary.	Both the five social insurances and the Housing Provident Fund are covered.

Payroll	Not offered. The pay is calculated by both the manufacturing company and the labor agency. After deducting the agency fees (4-5 hours of wage), the agency pays the wage. The agency tells the workers the hourly rate set at the point of recruitment and the work hours.	<p>A pay slip—simple piece of paper containing payroll information—is used.</p> <p>It is written clearly on the pay slips whether the pay is calculated by pieces or by hours. The piece-based wage is typically higher than the hour-based wage. There is usually no dispute over the calculation.</p> <p>For example, it's written on a pay slip that if the wage is calculated based on hours, the standard wage is 1,900 RMB for 180 hours. The hourly rate is 10.9 RMB per hour. Weekday (Monday to Friday) overtime work is about 60 hours per month, and the hourly rate is 16 RMB. The weekend overtime work is about 61 hours per month (equivalent to about 15 hours of overtime on weekends per week), and the hourly rate is 21 RMB.</p> <p>When a worker works 2-3 hours of overtime every day from Monday to Friday, and works 1.5 days every Saturday and Sunday, their hour-based wage is more than 4,100 RMB per month. But their piece rate wage is more than 5,200 RMB. (To note, it's not shown on the slip how many pieces the worker has accomplished and how much the unit price is) The actual salary is paid according to the piece rate.</p>	Not within the scope of investigation
---------	--	--	---------------------------------------

Section 5: Conditions of Accommodation and Food

The factory provides board and lodging. And workers were free to choose whether to live and dine in the factory.

1) The accommodation was free, but the water and electricity fee was 3 RMB a day, paid by the workers themselves. The dormitory had 2-6 people in each room and had four floors, including more than 60 male and more than 40 female workers. The 1st to 3rd floors were for men, and the 4th floor was for women. There was a special iron gate on the women's floor. One needs to swipe a factory ID card to enter.

The dormitory was equipped with showers, hot water, bathroom, air conditioning, and lockers. The bed was an iron frame bed with a 5mm thin board over it. The mattresses needed to be purchased by the worker at their own expense. If a worker chose not to live in the factory, the factory will subsidize 1 RMB a day or 30 RMB a month.

2) Breakfast in the cafeteria was at workers' own expense. Lunch and dinner were covered by the company (10 RMB per meal). If workers skipped the meals, they would not otherwise be subsidized, but they could instead exchange their meals for three drinks including yogurt and porridges. The cafeteria provided both meat and vegetarian dishes (the amount of meat is not stable). Rice and soup were unlimited. The meals were heavy in oil and salt, and were filling.



(Rules of dormitory management translated below)

Rules of dormitory management

1. Every employee upon leaving the company is charged utility fees, with a rate of 3 RMB per day.
2. All the employees are to accept the company's room assignment. Switching rooms without permission is prohibited.
3. To ensure the rest time of the employees, the light will be turned off at 23:00 PM. Before 6:30 AM, making noise in the dormitory is prohibited.
4. Workers can't return to the dormitory later than 23:30 PM, on weekends and holidays no later than 24:00 AM.
5. Making noise, gambling, fighting, and meal gathering are prohibited in the dormitory.
6. Alcohol is prohibited. Making noise and fighting in the rooms are prohibited. Those who violate this rule will be warned. If the violation is severe, violators' right to use the dormitory will be rescinded.
7. Adding wires to use power or using electrical appliances of above 60 W are not allowed. Those who violate this rule will be warned and electric appliances will be confiscated.
8. Without permission, guests are not allowed to stay overnight in the dormitory. Violators will be fined 200 RMB per night.
9. Staying overnight elsewhere frequently and not returning to the dormitory without legitimate reason is prohibited. Workers who stay overnight outside of the dormitory for over 5 nights per month would have their right to use the dormitory rescinded.

10. Fire (including burning paper and lighting a candle) and fireworks are prohibited in the dormitory. Violators will be warned. If the violation is severe, violators' right to use the dormitory will be rescinded.
11. Smoking is prohibited. Once found the disciplinary action will be severe.
12. Residents must take turns for the cleaning duty in the dormitory. At least one individual needs to be on the shift everyday. Every month there needs to be a deep cleaning. There are dormitory checks twice a month. The check results are to be publicized on the notice board. At the end of each month, the check results will be published, and based on which prizes and penalties will be determined. Method: an average score of under 80 will disqualify one from living in the dormitory. Every member in the top 3 rooms on the rank with an average score of above 90 will be awarded 50 RMB or a gift of 50 RMB value.

Section 6: Occupational Safety and Labor Protection

The factory had a "safety and environmental protection department." The department posted on a bulletin board indicating safety hazards in the factory that require resolutions. The department also posted signs near work posts that have safety risks and environmental hazards. General factory workers did not have any training on environment protection, health, and safety except for the time when they copy-paste the test questions and sign the notice when they arrive at the factory. In terms of labor protection supplies, the factory provided unlimited masks, and mask-wearing was required. Gloves and finger cots were too. Occupational illness risk information was posted inside the workshop and near the dormitory building. The "corporate responsibility" section near the dormitory building was covered by other posters. Noise, dust and solid waste in the production environment were factors that may affect the health of workers.

1) Noise: Air guns were used to wash away the residual toner in each production line in the open workshop. The noise within 1 meter of the source reached 105-110 decibels. Although there was a poster on the wall encouraging people to wear earplugs to prevent noise, in order for the leaders and quality control workers to communicate with workers during production and ensure efficient collaboration among workers, the workers close to the air gun operation as well as the air gun user were not allowed to wear earplugs. There were two fully automatic production lines that reached a noise level of 108-117 decibels, but 80% of the workers at and near this production line did not wear earplugs.



(The noise test results at a distance of two to three meters away from the air gun in the workshop.)

2) Dust: Some production lines in the open workshop were equipped with a toner filler, which was responsible for filling and canning toner of various colors as part of the integrated toner cartridge. The toner filler was required to wear specific masks. Older toner fillers were more careful, while younger ones were not.

3) Solid waste: Waste was sorted and classified by temporary workers. The individual for this position was recruited by a labor recruitment agency, and there was high turnover for this position.



(Left: Toner filler worksite. Right: Solid waste dumping site. Solid waste includes stickers, bad parts, plastic, dust, etc. It is unclear if there is any hazardous substance.)

The temperature in the workshop was moderate. The toner filling worksite was equipped with a dust collection system to reduce dust particles in the air. Ventilation was good, and the production line was ventilated during toner filling, but it was now known whether there were regular inspections. Masks, gloves, finger cots, etc. were changed every day and can be changed at any time by the workers. It was not clear whether workers were exposed to toxic and hazardous substances during production. Formal workers received a physical examination every 2 to 3 years, and the toner filling staff received a physical examination once a year (but it is not clear whether said exam is an occupational illness physical exam). There was no rotation for this toner filling position, and it was conducted by specially trained workers. These workers received an additional 600 RMB subsidy each month.

The interviewees generally avoided talking about work injuries and accidents. No relevant information was gained on this subject during the investigation. However, there was no first aid kit that can be easily spotted throughout the entire workshop. There was a first aid kit at the entrance of the dormitory office on the second floor of the dormitory. There were many fire extinguishers available. There was no storage of hazardous waste in the workshop.



(Occupational Hazard Notice Board translated below)

Occupational Hazard Notice Board		
Noise is harmful to human bodies, please take preventive measures.		
NOISE	Health Hazard	Physical and chemical properties
	It can lead to weakened and decreased hearing, permanent deafness, and systemic diseases such as indigestion, vomiting, headache, increased blood pressure, and insomnia.	Loudness and frequency changes are irregular; chaotic sound
Noise is harmful	Emergency measures	
	Use protective gears such as ear plugs, earmuffs, and soundproof caps. In case of abnormal hearing, go to the hospital for examination and treatment promptly. Use sound absorbing materials or structures to absorb sound energy. Wear earplugs. Use isolation enclosures, soundproof booths, and soundproof screens to block noise.	
	Prevention	
	You must wear ear protectors.	You must wear ear plugs.
Noise is harmful. Please be cautious. Emergency call 120 Fire call 119		

Section 7: Fire Protection

Workshop passageways and emergency exits were clearly marked and most of the time free from obstructions. Dormitory hallways and emergency exits were clearly marked, adequately lit and not obstructed. The emergency exit doors were not locked. The toner in the factory is flammable, and the factory/dormitory was equipped with fire-fighting equipment. None of the interviewees remembered the time of the last fire drill, and none of those who came less than half a year ago had done it. Most of the

interviewees have joined the work for less than half a year, so they have not ever participated in fire drills. The fire extinguishers were full, and the latest inspection time is marked on the inspection form.

Section 8: Rewards and Punishment

The employee handbook details the factory's reward and punishment system. Disciplinary actions include: criticism, warning, minor demerit, major demerit, and dismissal. It is unclear if there was any monetary penalty. If a manual worker arrives late or leaves early, the line leader would first criticize and warn them. **Then the supervisor would criticize and warn them. Later, they might be assigned to more marginal positions and then forced to resign.**

Rewards include: commendation, encouragement award, small achievement, grand achievement, special award, and award for optimal suggestion. The bonuses were generally low in amount. In the photo below is an example of the award. A manual worker found an error in the type of toner cartridges and helped the company to cut a loss of 500 defective ink cartridges. The award was only 100 RMB.

In terms of freedom of movement, employees have a 10-minute break in the morning and afternoon, during which workers could drink water and go to the bathroom. If workers wanted to go to the bathroom during work, they needed to inform the line leader and make sure that there was no piling of goods on the production line. No pass was required for going to the bathroom.

Section 9: Others

A worker representative was designated. When the investigator(s) tried to talk with them, they were reluctant to talk. **The worker representative said that "the title is useless". The representative's only duty throughout many years of work was to speak as a trade union representative when inspectors come.** They have never ever fought for any benefits, not even a piece of mooncake, on behalf of workers. "Everything is determined by the boss." **No worker hotline was found in the factory.** It is not known whether there has been a strike at the factory. **In terms of management, workers were not searched when entering or leaving the factory. In daily management, the line leader disciplined the workers on things such as sitting posture. There were also verbal abuses and threats.**

As for their choice to work in this factory, one interviewed worker said that the factory is "*not great, but better than the worst.*" Compared with some other factories in the Pearl River Delta with even worse working conditions and substandard production conditions, this factory's production environment, regulations, and wages were acceptable. The conditions were of the average level for industrial workers in the Pearl River Delta. Interviewees reflected the long day shift to be an advantage; there was no need to work night shifts and stay up late. Workers generally had no common knowledge on production safety.

The standard of living in the factory location was moderate, but most of the workers interviewed said **they could not save much money each month.** The rent near the Zhuhai Jinding Science and Technology Park area for a one bedroom and one living room unit was about 600-700 RMB. The rent for a single room was about 400 RMB. Some workers who had families or needed to live alone prefer to rent their own home. Some male workers spent a lot on smoking, between 200-500 RMB each month. Some Gen Z male workers spent 10,000-20,000 RMB on games. Middle-aged workers with families and children sent most of their income back to their hometowns. Workers without families spent the money on

food, games, Taobao (Chinese shopping app), and dating, and did not have much savings at the end of every month. As far as the future is concerned, some respondents said that they see no future in the repetition of working in the factory, living in the dormitory, and eating at the canteen day after day.

In terms of third-party inspection, the investigator(s) did not obtain relevant information during their stay at the factory. However, the website of Qichacha shows that on June 4, 2019, Hubei Dinglong Co., Ltd., the parent company of the factory, was investigated and fined twice by the Wuhan Ecological Environment Bureau. The fine was 3.026 million RMB in total.

Section 10: The Effect of the COVID Pandemic

Due to the pandemic, new workers were required to present a negative COVID test report, a green health code in Zhuhai, indicating negative COVID test results within 48 hours before entering the factory for an interview, and the itinerary card could not carry an asterisk. If a worker came from a city where positive COVID cases were reported (such as Guangzhou and Dongguan), they were required to be quarantined in Zhuhai for 14 days and participate in community COVID testing before they could come to work. Before going to work every day, 3-4 security guards routinely checked the health codes and itinerary cards of all employees entering the factory. When there were positive cases in Zhuhai, a 48-hour COVID test certificate⁷ was also required during this procedure.

When positive cases were detected in Zhuhai, the factory notified the line leaders of each production line to schedule their workers to the nearby community COVID test center. Some production lines had their employees take the COVID tests on their own during lunch break (via riding electric vehicles, buses, taxis or walking). Under these situations, however, the hours for the afternoon could be pushed back; some assembly lines canceled their overtime at night for the workers to complete their COVID testing requirements after they got off work at 6:00. During the pandemic, masks were distributed in the factory. And masks were in fact required even without the pandemic because of the dust in the workshop. Partitions were installed on the canteen tables. No special welfare subsidies or unpaid wages have been found so far due to the epidemic. Moreover, the COVID pandemic has made orders more unstable, and the amount of emergency overtime needed has increased.

The pandemic has also led to a large-scale reduction in the recruitment of hourly workers (or “dispatched workers”, recruited by labor service companies). The labor service companies in question warned the workers against making the decisions to leave their factory positions lightly during the pandemic because they did not know when the next job could come around. Some newly recruited workers cherished their jobs more and were more willing to cooperate with overtime and the factory's various regulations because they had not found jobs for several months before the pandemic erupted in the city, economically unstable, and were more vulnerable to exploitations.

Section 11: Environmental Impact

1. Waste handling and recycling procedures: There was a garbage and recycling area at the entrance of the factory building. Workers sort the paper and other items. There was a pickup truck that came to pick trash up every day.
2. There was an air collection system to collect the waste residue, that is, the toner blown away by the air gun. But no specific recycling/disposal site has been found during the investigation.

⁷ Note: said certificate indicates that the holder has received a negative COVID test result within the past 48 hours.

3. Wastewater management: The investigator(s) did not find any industrial sewage discharge and collection sites in the workshops of the factory, but outside the factory, they found the sewage outlet through which the factory discharges wastewater into the environment. The investigator(s) took the water sample at a spot close to the river behind Zhuhai Chaojun Technology Co., Ltd. and Zhuhai Mingtu Technology Co., Ltd. Got around from the back door of the factory and walked along the river for a while. There was a place covered by vines near Fumao Steel Structure Co., Ltd., and it could be observed that there is a cement pipe coming along from the directions of Chaojun and Mingtu, jointly connected to this discharge point. The location was very hidden. It appeared that this could be a shared sewage outlet of the two factories.

The water sample that the investigator(s) took from the wastewater discharged from the sewage outlet outside the factory was subsequently sent to a professional testing agency. The test results showed that the corresponding values in the wastewater produced by the factory were: chemical oxygen demand (476 mg/L), five Daily BOD (214 mg/L), suspended solids (70 mg/L), petroleum (88.5 mg/L), animal and vegetable oils (190 mg/L), aniline compounds (1.55 mg/L)

According to the "Discharge standard of water pollutants for printing ink industry (GB 25463-2010)" and its stated guideline regarding concentration limit of industrial wastewater discharge from comprehensive ink production enterprises, the main industrial indicators of direct discharge were: chemical oxygen demand (120 mg/L), five-day biochemical oxygen demand (25 mg/L), suspended solids (40 mg/L), petroleum (8 mg/L), animal and vegetable oils (10mg /L), aniline compounds (1.0 mg/L).

Based on the comprehensive results, it appears that the six items of environmental pollutants far exceeded the legal threshold stipulated by the "Discharge standard of water pollutants for printing ink industry (GB 25463-2010)." In conclusion, the wastewater that was likely discharged by Zhuhai Chaojun Technology Co., Ltd. contained high levels of environmental pollutants and did not meet the government-mandated emission standards.



(Photos of Wastewater discharge)

As mentioned before, the company was investigated and fined twice by the Wuhan Ecological Environment Bureau. The fine was 3.026 million RMB in total. The receipts from the Bureau (translated) are illustrated below:

违规处理详情



公告日期	2019-05-14	处罚对象	湖北鼎龙控股股份有限公司
类型	未依法履行其他职责	处分类型	公开处罚
处理人	武汉市环境保护局	处罚金额	2.6989万元
违规行为	公司在2017年2月9日出现短时间超过《污水综合排放标准》(GB8978-1996)表4中“一级”标准限值情况,是春节假期停产后,在节后重开污水站运行时需投入营养液(磷酸盐),由于投入超量导致排口总磷超标(总磷监测值2.21mg/l,限值0.5mg/l),公司所有产品的生产原料均无含磷元素,总磷超标属偶然原因。		
处分措施	及给予公司26,989.08元罚款		

Violation Handling Details

Date	2019-05-14	Subject of punishment	Hubei Dinglong Co., Ltd.
Type	Not fulfilling responsibilities under regulations	Punishment type	Public
Processor	Wuhan Ecological Environment Bureau	Fine	26,989 RMB
Violation Behavior	On Feb. 9, 2017, the company's emissions exceeded the standard threshold stated in article 4, type one "Integrated Wastewater Discharge Standard." After the suspension in production due to the Chinese New Year, the wastewater processing plant required the input of a nutrient solution (potassium phosphate), and because of the excess input, total phosphorus level exceeded the threshold (tested level of 2.21 mg/L, threshold 0.5 mg/L). Company's product contains no phosphorus, and the excess levels of phosphorus appear accidental.		
Punishment	A fine of 26,989 RMB		

违规处理详情



公告日期	2019-06-04	处罚对象	湖北鼎龙控股股份有限公司
类型	未依法履行其他职责	处分类型	公开处罚
处理人	武汉经济技术开发区(汉南区)环境保护局	处罚金额	300万元
违规行为	-		
处分措施	-		

Violation Handling Details			
Date	2019-06-04	Subject of punishment	Hubei Dinglong Co., Ltd.
Type	Not fulfilling responsibilities under regulations	Punishment type	Public
Processor	Wuhan Ecological Environment Bureau	Fine	300,000,000 RMB
Violation Behavior	-		
Punishment	-		

Zhuhai Chaojun Technology (珠海超俊科技有限公司) Investigative Report

Brief Introduction of Company



Zhuhai Chaojun Technology Co., Ltd., established on Apr. 25, 2020, has registered capital of 20 million. The legal representative of the company is Tao Longji, with its business status active. Its industrial and commercial registration number is 440407000004203, and the registered address is Jinheng 2 Road, Jinding Science and Technology Industrial Park, High-tech Zone, Zhuhai City. Zhuhai Chaojun Technology Co., Ltd. is a high-tech enterprise specializing in the production of printing consumables. The firm also does business as Retech Technology International.

Founded in 2001 as Shenzhen Chaojun Technology Company, the company started as a trading company in Hong Kong and with a Shenzhen-based production center shortly. It was acquired by Hubei Dinglong in 2016. As part of lowering production costs, the factory was relocated from Shenzhen to Zhuhai in 2020. Colocating the factory with other Hubei Dinglong assets in Zhuhai also would help to lower supply chain and logistics costs and allow the company to tap into other supports the city offers the third-party supplies industry, such as technical training at local school and universities. At present, the

new factory is equipped with a new generation of high-tech automated production lines, achieving a monthly production capacity of 1.8 million new toner cartridges and 4 million new toner cartridges per month.

Factory Basic Information

Address: Rd. Jinheng 2, Jinding Science and Technology Industrial Park, High-tech Zone, Zhuhai

Products: toner cartridges, printing consumables and related accessories

Number of employees: 145 people insured, the actual number is about 400

Number of workers: about 350

Male to female ratio: 1:1

Number of respondents: 15

Male to female ratio of respondents: 9:6

Section 1: Recruitment and Resignation

There were two paths of recruitment: 1) Factory recruitment: applicants became formal employees through directly contacting factory recruiters; 2) Agency recruitment: In Zhuhai or rural areas, many applicants were introduced by third party labor agencies, and these applicants were usually brought into the factory as temporary workers. In terms of recruitment requirements, no geographical, ethnic, gender and religious restrictions were found. The only thing that did not match the external job advertisements is age: the factory's recruitment advertisement on their official WeChat account expressly said to recruit individuals aged 18-48, but the investigator(s) found that applicants under the age of 18 were also recruited into the factory. Their positions were no different from adult workers.

To enter the factory, applicants needed to submit two copies of their state-issued ID, a copy of a debit card issued by the Agricultural Bank of China, and a medical report. No fees were charged and no documents were confiscated. In terms of deposit, a deposit of about 20 RMB for their meal card was required, which could be reimbursed after the worker leaves the factory; another deposit of 50 RMB was charged when the workers enter their dormitories and were asked to make a copy of the keys, which was required to be done within three days. Employees could file reimbursement from the factory for their medical examination expenses after three months of employment, which would be paid along with their fourth month's salary on the 18th of the fifth month. There was no basic training, as the investigator(s) started working the same day as them signing the contract. In terms of work uniforms, no work uniforms were provided for employees who have not been employed for one year.

The factory's probationary period was one month. For all resignations during the probationary period, the employees must provide a three days notice, and procedurally, this process was stretched out with reporting to their immediate supervisor with a personnel report and a resignation letter before the worker could get their salary. Or else their cases would be regarded as self-resignation,⁸ and no wage for the time prior would be paid. Workers who resigned one month in advance during the contract period could resign according to the normal procedure. In terms of freedom of resignation, when ordinary workers chose to give up their unsettled wages and resign, the factory would neither intervene nor retain

⁸ Note: Self-resignation refers to the act of voluntarily rescinding the contract without applying for resignation three days in advance during the probationary period, or applying for resignation one month in advance during the contract period.

them. This means that workers could leave at any time, but they would lose part of their due wages. If workers chose to leave the factory on their own, the procedures for leaving the factory were very simple: pack up their luggage, return to the dormitory management office, hand in their badges, scan the code and fill in the online release slip, and then they can leave. In these cases of self-resignation, the factory would not pay their salary for the previous month; those who resign through the formal process would receive their due salary on the 18th of the next month.



(Left: Recruitment advertisement on the factory's official WeChat account. Right: Recruitment advertisement in front of the factory.)

Section 2. Employment Contract

The factory offered labor contracts for formal employees, while temporary employees signed no contract. The labor contract was signed after the HR personnel examined the medical report, the copies of the applicants' ID card, and debit card. The HR personnel brought the labor contract to the worker, and then turned to the last page for the worker to sign. A duplicate of the signed contract would be produced, but HR takes both copies of the labor contract. Workers did not even have the permission to read them, before the HR took them away. Neither the worker nor the investigator(s) had a copy of the labor contract, and HR only briefs it to the workers with some of the contents.

It was mentioned in the contract that the probation period was one month, the workplace being in the workshop, and the salary calculated on piece-rate, from 4 cents 50 to 7 cents 50 for each finished piece. After joining, social security was purchased for formal employees, while temporary employees did not have social security or any other benefits. However, it is impossible to know other contents stipulated in the contract, and to determine whether the factory actually implements all of the contractual obligations with current information.

Section 3: Working Hours

Workers' regular work schedule was: 1) The normal workday is 13.5 hours a day, and occasionally even 15.5 hours is required. Morning work hours: 8:25-11:50 (generally, employees would be asked to arrive at the workshop before 8:20 and to hold a five-minute short meeting); lunch time: 11:50-12:50; afternoon work hours: 12:50-17:20; Dinner time: 17:20-18:00; Evening work hours: 18:00-22:00. 2) workday consisted of 7 days per week, and no overtime was required only for Sunday evenings when the working hours were 8:20-17:20, 9 hours in total. A total of 90 hours of work per week. 3) At most one day was off for each month, sometimes no rest day was offered. If we treat each month as thirty days, then working 29-30 days per month, an average worker works a total of 387 hours per month.

The plant did not have a distinct peak or low season. Workers were counted as working overtime only after 10 pm. According to the factory's formula, workers worked an average of 0.3 hours of overtime per day and an average of 9 hours of overtime per month. Workers could choose not to work overtime, but they were required to ask for a leave in writing (which is treated as a leave), but if they did not obey the overtime requirement, they would suffer verbal abuse in the morning meetings and be threatened with dismissal. Each assembly line in the factory had a production target. The factory called it "productivity." In the packaging workshop, employees were not particularly aware of the target productivity, but there was a monthly productivity board at the entrance of the workshop. The monthly productivity target was usually not achieved.

There was a punch card machine at the entrance and exit of the workshop to record work time. There were three opportunities to make up for work time on the card every month. If there were more than three misses, the salary for the period when the card was not punched would be deducted. Employees were not guaranteed at least one day off every 14 days. And it is understood that the maximum number of consecutive workdays was about 40 days, with the most recent occurrence in April. There may exist consecutive workdays longer than 40 days.

There were no double shifts at the plant. Employees had a 1-hour break at noon and a 30-minute break at night. There was no guarantee of at least 10 hours of rest per day. During the investigator(s)' stay in the factory, one employee worked overtime until 12am for two separate nights, with a mere 8.5 hours of rest until the work hours the next day. Basically every day, workers were required to work early in the morning, but finished work late (such as getting off work at 12am).



(Productivity board)

Section 4: Compensation and Benefits

Wages were paid on a monthly basis, on the 18th of the following month. No cases of unpaid wages were not recorded by the investigator(s), and the lowest wage day of the month was recorded when actual monthly production is at its lowest. The wages of formal employees were paid directly by the factory, and that of temporary workers were paid by their labor agencies. The average salary of workers formally contracted for the month before the investigator(s)' presence was over 4,000 RMB. Because salaries were calculated based on collective piece rate, everyone's salary was the same. However, the detailed structure of the wages—including deductions—could not be known without pay slips, which were not made available.

There were two ways to calculate wages. 1) Workers with formal contracts: They were paid according to piece. The price of each piece is not constant, ranging between 4 cents 50 to 7 cents 50 per piece, without an hourly rate. About 70% of employees were unable to meet their quotas during normal working hours. And there was no overtime pay for work on statutory holidays, weekends, etc., only piece-rate pay. 2) Temporary workers: hourly wages, ranging from 21-23 RMB per hour, but the wages of temporary workers were first issued by the factory to their labor agencies and the agencies charged a fee ranging from 4-6 RMB per hour. The amount the temporary workers actually received was 17 RMB / hour; there was no overtime pay for work on statutory holidays, weekends, etc., only hourly wages.

No pay was offered to workers on sick leave. However it was not difficult to ask for sick leave, as the worker only needed to explain to their supervisor in the WeChat group one day in advance to the leave, and they could make up the written leave form later. The employee handbook (translated in the Appendix) stated that employees enjoy social security benefits. The investigator(s) asked the employees to verify that fact, and it appeared that formally contracted workers receive social security benefits, but the same did not apply for temporary workers. Workers were entitled to a 3-days marital leave, but that only applied if they obtained a marriage certificate after entering the plant. Paternity leave and

breastfeeding leave were in accordance with national regulations, but the specific implementations were uncertain. Bereavement leave was available in the event of the death of an immediate family member. Employees who have been employed for one year can enjoy the statutory annual leave stipulated by the state. However, for employees who had worked for less than 10 years but have been on sick leave for more than two months, employees who had worked for 10 years and less than 20 years and have been on sick leave for 3 months, and employees who had worked for more than 20 years and have taken sick leave for more than 4 months, the annual leave of the year was not available. Vacations needed to be applied via written application in advance, reporting to the workers' superiors and the HR, and were only applicable once they received an approval. Workers had no wellness and entertainment facilities, only one "employee home" (essentially a canteen), and there were two ping-pong tables in front of the door.

Section 5: Conditions of Accommodation and Board

The factory provided free room and board, and workers could choose whether to live in the dormitory and dine in the cafeteria. If an employee chose not to live in the company dormitory, there was a monthly rent subsidy of 30 RMB/month. Dormitory conditions: 8 beds per room, but the factory only allowed up to 6 people a room. The rooms were with windows (one side of the dormitory faces the sun, the other side does not). There was a bathroom with shower and a squat toilet. There were fans and air conditioners, no desks and no lockers, and employees generally put their personal items on the vacant beds.

Employees could dine in the cafeteria for free on working days, and they swiped their employee ID cards for record-keeping (no transaction is required); if they dined in the cafeteria on the days when they were on leave, the meal fee would be deducted directly from their monthly salary according to the company's standard meal cost. Yet the employees who were interviewed were not aware of the company's meal cost. If employees used the factory's disposable lunch box to eat, they needed to pay one RMB per meal separately. The condition of the cafeteria was acceptable. There were two floors. The upper floor could serve meals with three dishes, for which the workers could choose two meat dishes and one vegetarian. There were about 6 dishes to choose from, but there were little rotations for them. There was a small window on the first floor where employees could order a dish to be made with their employee cards.

Section 6: Occupational Safety and Labor Protection

Environmental, health or safety committees were yet to be found within the facility. According to the investigation, no employees have received any training on work environment, health, and safety. The factory also did not provide safety equipment for employees in the packaging workshops.

The conditions in the workshops were mostly similar. 1) In terms of temperature, it was very hot during the summer. Although air conditioners were turned on in the workshops, it was still a little hot. Some employees placed small fans in front of them. 2) Sanitation was not ideal. Before getting off work every day, the employees would be responsible for the sanitation of their work group, and could only leave after cleaning. Supervisors sometimes reprimanded employees for not maintaining good hygiene. 3) The corridors were unobstructed under normal conditions, but when the cargo was heavily piled up they could occupy the corridors.

Workers in the packaging workshop generally did not come into contact with any toxic and harmful substances, but workers who filled the toner powders were exposed to dust such as carbon powder. The diameter of the carbon powder is between 3-5 microns, which could easily enter the lungs of the human body through the respiratory tract. This is harmful to the human body, especially for the lungs. The potential hazards of toner filling to human health: Toner cartridges were filled with toner without strict environmental protection, and small particles were scattered in the air. After repeated exposure and inhalation of these particles into the human body, workers' cancer risks were several times higher than that of the average person.

The factory had a relatively complete ventilation system, but it is not clear whether they were examined regularly. But upon visual inspection, they seemed to be relatively new and run smoothly. It was not known whether the factory conducts on-the-job and post-resignation occupational medical examinations for employees exposed to hazardous substances. Upon discussion with older employees, it was not clear if there have been any cases of work-related injuries. However, according to the workers in the packaging workshop, the machines they operated were also dangerous to a certain extent. If they were in charge of adding plastic films to the product, the temperature could reach 100°C and the workers could be burned accidentally. The situation with occupational diseases has not been found, but the investigator(s) believed that long-term work and lack of effective protection in a workshop with a noise of up to 100 decibels could easily cause hearing damage. There were also no first-aid kits in workshops and dormitories.



(Ventilation pipe)

Section 7: Fire Protection

The emergency exit signs of the workshop passage were relatively clear. Dormitory passages and emergency exits were clearly marked, well-lit, and free of obstructions from random objects. There were corridors on both sides of the dormitory, and the corridors were not blocked or locked. Not aware if there were any fire drills within the factory. There were a lot of flammable materials in the factory area. But fire

protection measures were in place with dry powder fire extinguishers implemented. Upon visual inspection, they were relatively new and filled. It remains unclear whether they were inspected monthly.



(Left: Emergency exit sign. Right: Fire extinguishers)

Section 8: Rewards and Punishment

The company's employee handbook stipulates two categories of disciplinary violations. The first category of disciplinary violations included disobedience to management, workplace chatting, leaving work/sleeping without authorization, inappropriate attire, misbehavior, disrupting factory discipline, etc. Once these rules were violated, the person in charge of the employing department would submit a written "Warning Notice" to the employee pending their signature, and after employee signature, it was submitted to the Personnel/Administrative Department for record-keeping purposes. If financial losses were caused to the factory, compensation for the financial loss was required. The second category of disciplinary violations included the violation of national laws, absenteeism for 3 consecutive days, late arrival and early departure, fraud, leaking company trade secrets, destroying company property, sabotaging/organizing strikes or participating in strikes, etc. These were considered serious violations of company rules and regulations. The company retained the right to terminate the labor contract without any economic compensation.

The punishable behaviors listed on the employee handbook were numerous, some were very clear, but some were ambiguous, such as "misbehavior, immorality," which was hard to clearly define. In terms of rewards, it was divided into commendations, encouragement awards, small merits, rational suggestion awards and outstanding employee awards (see Appendix for details). For example, in a meeting during CLW's investigation, a dozen employees were publicly praised and rewarded for discovering product issues such as missed labels in time. The employees who found a higher number of issues were rewarded a few RMB per piece; some employees received rewards ranging from 8 to 118 RMB.

Workers had freedom of movement at work. Among them, there was no fixed time for rest and toilet use in the morning, noon, and evening working hours in the factory, and everyone arranged their

own time. However, it has been observed that very few employees go to the bathroom often, because everyone on the assembly line affects the work of others, and persons going to the bathroom faced a certain peer pressure. If they were done with their work and were free, they would go to the bathroom or drink water.

Section 9: Others

There were no unions or worker representatives and no worker hotlines in the factory. It was also not known whether there has ever been a strike. Workers entering and leaving the factory were not searched. Workers in the factory have been reported to be targets of bullying and insults from their superiors. The heads of the teams (group leaders) had great power over the workers, and they had the authority to decide whether the workers would work overtime. For example, a 55-year-old female worker who generally communicated with vulgarity was often subjected to prolonged verbal violence and insults, reportedly saying that she was "brainless", "had a problem with her brain" and so on. The leader has asked her to work overtime alone until 24:00 twice, **often criticized her during the morning meetings, and threatened her with dismissal.** The investigation also showed that in the past, some clients came to the factory for evaluation, and when the factory was randomly inspected for some substandard products the final measure was to punish the employees.

Prices were low in the area where the factory is located. The cost of renting outside was generally between 400-600 RMB; generally people didn't need to spend too much money on food; if they rent, they often had to take a motorcycle or a taxi to work, which costs 10-15 RMB at a time. There were many reasons why workers choose to work in this factory. Some workers said: 1) They were attracted by the surface salary: Some employees chose this factory because the salary was relatively okay, which was 4800-6800 RMB as written on the recruitment notice. 2) Recommended by fellow villagers /family: Some employees were recommended by fellow villagers, but after coming, she found the work to be tiring and had a feeling of being deceived. 3) Familiar with the rhythm of work: There were old employees who have been working here for several years. The reason she chose to stay here is that "*it's good if you're used to it, it's stable, and you can leave work earlier.*" In terms of workers' satisfaction with the income, workers generally expressed that wages were too low under such high work intensity. Below are the selected testimonies of the interviewed workers.

Worker 1: "It's such hard work, we need at least more than 6,000 RMB!"

Worker 2 (just arrived a few days ago, and haven't received salary yet): "I'm just trying to see how much I can get for a month. If it's only 4,000 some, then it's nothing worth staying. The acceptable minimum wage is 5800, but because of the epidemic, it is difficult to find a job, I might wait until July or August, when it is easy to find temporary jobs, and I want to find some jobs with shorter working hours and higher wages."

Worker 3 (who has been here for five or six years): "The highest salary was about five or six thousand, but now it's only over 4,000 because it's all new workers in my group."

In terms of the working hours, workers generally believed that there was too much overtime and not enough rest time:

Worker 1: "It is too harsh. I have just quit my job and I can leave in a month. I wish I don't have to work so late at night, and that I can take one day off per week."

Worker 2: "This is the most tiring job I've ever done. I've never slept enough in the past few days. I wish that it will be at most seven or eight o'clock at night, and that I can have one day off per week."

Workers are generally dissatisfied with the factory managerial rules, but can only accept it:

Worker 1: "I have a hard time getting used to it, and I really dislike the group leader. He routinely arranges work very unreasonably. And the hours are too long. The cafeteria is ok, although the dishes have no rotations, and the dormitory has air conditioning. But the working hours are too long, so the factory can't keep its people. And there's no basic salary slip, this is a black factory (黑工厂)."

Regarding future plans, most of the workers expressed dissatisfaction, but they could only work here for now:

Worker 1: "I will work here until April or May, when I can get out to find odd jobs, and then the salary should be higher, and I can check out after working for a week. But now there's no way out because since the epidemic, many factories have closed down, and it is difficult to find a job now."

Worker 2: "I plan to keep doing it. I still have responsibilities at home. And I'm getting used to this job."

Section 10: The effect of the COVID pandemic

Because of the pandemic, new employees were required to present a negative COVID test report and a green health code in Zhuhai within 48 hours before entering the factory for an interview, and the itinerary card cannot carry an asterisk. Workers were required to present a negative COVID test result—which remains active within 48 hours—everyday when they entered the factory to go to work. Therefore, workers often left work very late and used their limited rest time to fulfill the COVID testing requirement. Sometimes they needed to take time off to do tests.

The COVID-19 pandemic has shut down many factories, and workers have tended to become more conservative in making work-related decisions. They were now more inclined to endure it even if they felt unfairly treated. Some new workers found the hours in the factory to be too long and the wages to be too low. They wanted to leave, but it was difficult to find any jobs because of the pandemic. As an example, a 27-year-old male worker has been seeking a new position for a few weeks without any luck, and had to endure the factory's harsh work conditions. Company managers also took advantage of the workers' mentality of "fear of losing their jobs" to bully workers at work, threatening to terminate the workers if they didn't work well.

Section 11: Environmental Effects

The investigator(s) took the water sample at a spot close to the river behind Zhuhai Chaojun Technology Co., Ltd. and Zhuhai Mingtu Technology Co., Ltd. Got around from the back door of the factory and walked along the river for a while, there was a place covered by vines near Fumao Steel Structure Co., Ltd., and it could be observed that there was a cement pipe coming along from the directions of Chaojun and Mingtu, jointly connected to this discharge point. The location was very hidden. It appeared that this was the shared sewage outlet of the two factories.

The water sample that the investigator(s) took from the wastewater discharged from the sewage outlet outside the factory was subsequently sent to a professional testing agency. The test results showed that the corresponding values in the wastewater produced by the factory were: chemical oxygen demand (476 mg/L), five Daily BOD (214 mg/L), suspended solids (70 mg/L), petroleum (88.5 mg/L), animal and vegetable oils (190mg/L), aniline compounds (1.55 mg/L)

According to the "Discharge standard of water pollutants for printing ink industry (GB 25463-2010)" and its stated guideline regarding concentration limit of industrial wastewater discharge from comprehensive ink production enterprises, the main industrial indicators of direct discharge are: chemical oxygen demand (120 mg/L), five-day biochemical oxygen demand (25 mg/L), suspended solids (40 mg/L), petroleum (8 mg/L), animal and vegetable oils (10 mg/L) /L), aniline compounds (1.0 mg/L). Based on the comprehensive results, it appears that the six items of environmental pollutants far exceed the legal threshold stipulated by the "Discharge standard of water pollutants for printing ink industry (GB 25463-2010)." In conclusion, the wastewater discharged by Zhuhai Chaojun Technology Co., Ltd. contains high levels of environmental pollutants and does not meet the government-mandated emission standards.

Appendix

1. Regulations on Disciplinary and Reward Actions in Zhuhai Chaojun Technology Co., Ltd. Employee Handbook

Work Violations

1. Disobedience to management, assignment of work tasks, or not operating in accordance with the process flow chart and operation instructions, but have yet to cause serious losses.
2. Employee fraud. And if the manager covers it, it is a dereliction of duty.
3. Misuse of company property, but waste is not yet serious.
4. Causing minor losses to the company due to employees' failure to perform duties conscientiously. For example: Loss of important documents, materials, or items.
5. Chatting, making noise, playing in the workplace, obstructing other people's work, and failure to make corrections despite reprimands.
6. Engaging in personal affairs outside of work responsibilities during working hours, and failing to improve in time after being reprimanded.
7. Inability to cooperate with others.
8. Leaving work, sleeping during working hours, or changing jobs without authorization.
9. Leaving work early, showing up late 3 times or under.
10. Missing company's training without proper excuses.
11. Misbehavior or rude behavior, repeated despite reprimands.
12. Negatively affecting the company's sanitation and environmental safety and health, repeated despite reprimands.
13. Not complying to the company dress code, repeated despite reprimands.
14. Other behaviors that violate company regulations or generally accepted social and ethical standards
15. Other behaviors that violate the Code of Conduct for Employees in Chapter VIII.

16. Disobedience with supervisors' work arrangements and supervision, repeated despite reprimands.
17. Visitors who bring outsiders into the factory without permission.
18. Unauthorized use of fire extinguishing equipment.
19. Failing to arrive at the post immediately after swiping the employment card, or leaving the post without authorization (the direct manager is jointly responsible for the improper management, and a performance bonus of 50 RMB/time is deducted. If the manager leaves the post without authorization, and their direct manager is jointly responsible for the improper management. Deduct performance bonus of 100 RMB/time.)
20. Quarreling within the plant but not yet escalating to physician contacts, or other behaviors that violate the company's management policies, and do not obey the rules.
21. Intentional avoidance to help in an event of emergencies.
22. Causing the company suffers minor (not more than 500 RMB) losses due to personal work omissions or mistakes.
23. Disrupting work discipline or public order, and not obeying those who discourage such actions.
24. Immoral behavior, disrupting social order.
25. Disrupting public sanitation and damaging public property.
26. Fireworks are strictly prohibited in the factory, warehouse and production workshop. If cigarette butts or (cigarettes) are found in the workshop, the smoker's performance bonus of 200 RMB will be deducted. Their direct supervisor is jointly responsible and a deduction of 200 RMB from their performance bonus will be deducted.
27. Intentionally wasting or destroying company property.
28. Threatening the personal safety of other colleagues in any way
29. Damaging the company's reputation or producing negative consequences due to personal reasons.
30. Bringing illegal or dangerous goods into the factory without the permission or declaration.
31. Forging or misappropriating official documents or work information.
32. Damaging work equipment and public facilities due to negligence (but have not yet caused major losses).
33. Using the company's name to swindle and deceive and seriously harming the company's image (but no losses have yet been caused).
34. Disciplinary violations in line with other regulations of the company.

Note: If an employee commits the above violations of discipline, the person in charge of the employing department should submit a written "Warning Notice" and solicit the employee's signature, then submit it to the HR/Administration Department for record-keeping purposes. If economic losses are caused to the company, compensation for the losses is required.

Workplace Violations

1. Violating the national laws and regulations will lead to detention, reeducation through labor, or sentenced by relevant departments.
2. Three consecutive days of absenteeism or five or more days of absenteeism in six months.
3. 10 or more accumulated late arrival/early departure at work in the span of a year.

4. Violation of rules and regulations and received written warnings for a total of three times or more.

5. Serious breach of trust and credit behavior. For example: perjury: falsifying company records, personal records or documents; intentionally providing false information; imitating the signature of a superior, embezzling a letter printer or using the company name without authorization; defacing of employment cards; spreading of rumors to confuse the public to slander the company's image; forgery of sick leave certificates or false issuance sick leave certificates; providing false invoices for reimbursement.

6. Smoking in the non-smoking area (offenders will receive a 200 RMB deduction of their salary. If economic losses to the company are caused, the smoker(s) should compensate the company for the losses, as the company has repeatedly emphasized that smoking in the non-smoking area is a serious violation of the company's rules and regulations).

7. Leaking the company's business secrets, violation of intellectual property protection policies and other confidentiality clauses and causing heavy losses to the company (more than 1,000 RMB is considered a heavy loss). For example: leaking of company trade secrets and causing harm to the company's interests, and disclosing company proprietary or confidential information to unauthorized individuals and organizations.

8. Any form of theft or use of company resources for personal gain. For example: stealing company property or embezzling company funds; stealing or embezzling the property of colleagues or the company; pretending to be their supervisors and engaging fraud; demanding bribes, accepting bribes, and receiving bribes in the performance of official duties and outside exchanges; offering, giving, requesting or accepting any form of bribe in the company's business activities for their own or their relatives' gains; introducing the company's customers to others to cause the company to suffer losses or claiming kickbacks from others.

9. Deliberately endangering or destroying the safety of company assets, property, personnel, and workplaces, and causing losses of more than 1,000 RMB. For example: deliberately wasting company property: intentionally damaging or destroying important company documents or public properties.

10. Fighting others within the company (including violence, serious threats, sexual harassment or personal insults, etc.), if they cause any economic losses to the company, they need to compensate for the losses. If the circumstances are serious, they will be handled by the law enforcement officials.

11. Planning, carrying out, participating in, or conducting behaviors that are harmful to the company's interests or reputation. For example: harming the company's reputation and causing bad influence; fabricating rumors or causing accidents, leading to losses to the company.

12. Active sabotage, disobedience to their superiors' management and assignment of tasks, repeated offense despite reprimands.

13. Inciting, calling, or organizing employees to strike, ceasing work, or participating in strikes.

14. Participating in part-time jobs, in the conflict of interest with the company, and disobeying after being notified by a supervisor.

15. Poor management or illegal operations, resulting in more than 1,000 RMB in asset losses or casualties. For example: not taking measures to accidents that can be prevented or not taking active measures, leading to damage to the company's interests; neglecting their duties, operating or commanding against the regulations, and causing accidents or economic losses; violating the confidentiality of company wage policies, inquiring about or informing others about their salaries.

16. Affecting the company by managerial negligence.

17. Taking illegal drugs or other prohibited substances during work hours.

18. Disciplinary violations in line with dismissal in other company regulations.

Note: The above disciplinary violations by employees are serious violations of the company's rules and regulations, and the company has the right to terminate the labor contract without any economic compensation.

Rewards:

1. Commendation: Depending on the specific cases, actively lowering the company costs and increasing efficiencies. Exposing and stopping events of fraud or harm to the rights and interests of the company in advance. 30-50 RMB.

2. Encouragement award: The reasonable suggestions put forth by the employee are not adopted by the company, but are deemed by the committee to be thoughtful with reference values upon review. 50-80 RMB

3. Small Merit: Preventing accidents and major disruptions in time, so that the company can avoid losses of more than 500 RMB. 80-100 RMB

4. Small Merit: Preventing accidents and major disruptions in time, so that the company can avoid losses of more than 3000 RMB. 100-150 RMB

5. Suggestion Award: The reasonable suggestion put forth by the employee is adopted by the company, with creativity or innovation. A reward of 50-200 RMB is to be given.

6. Outstanding Staff Award. 100-300 RMB.