Global Electronics Industry:

Poster Child of 21st Century Sweatshops and Despoiler of the Environment?

BY GARRETT BROWN

The global electronics industry is squarely in the sights of environmental, labor rights and occupational health and safety organizations around the world.

It sounds like headlines ripped from newspapers about global sweatshops in the 1990s: huge factories of women workers producing consumer products for Europe and the United States under conditions of long hours, low pay, impossibly high production quotas, often unsafe machinery and unhealthy workplace exposures and sometimes abusive treatment by supervisors and managers.

Unions are banned; wages are docked for infractions of "factory rules;" weeks of mandatory overtime occur without a day off; the legal minimum wage becomes the ceiling, not the floor; overtime wages are owed but never paid; large "recruitment fees" put migrant workers deeply in debt; and labor laws are suspended altogether in the "export processing zones" filled with sub-contractor plants producing for global "brand name" retailers.

But these are not reports from apparel, toy or sports shoe factories 15 years ago at the dawn of the "anti-sweatshop" movement, but rather documented conditions found in the global electronics industry at the end of the 21st century's first decade. (For a list of just some of the most recent reports issued by academic researchers and non-governmental organizations, see the box on page 48 or visit *http://mhssn.igc.org/ListReports.htm*).

Moreover, it's not only worker exposures in the production process that are problematic. The

raw materials used by the electronics industry include vast amounts of water (the 21st century's oil) and metals torn from the four corners of the earth, including aluminum, copper, lithium, tantalum, tin and cobalt (mined in Africa, cobalt is the electronics industry equivalent of "blood diamonds").

And then there is the ever-growing tsunami of electronic waste that has flooded countries like China, Ghana and India, where it is "processed" in rudimentary workshops, often by children, in ways that poison the workers and pollute the environment.

LEARNING FROM OTHERS' MISTAKES

For the first 10 years or so of the global anti-sweatshop movement, the electronics industry generally got a "bye" from campaigners. In part this was due to the industry's successful public relations efforts to portray itself as a "clean industry," despite the greatest concentration of EPA Superfund hazardous

waste sites anywhere in the United States – 29 sites in California's Silicon Valley where the industry was born.

Fifteen years later, the global electronics industry – computers, cell phones, game consoles – has become the "new Nike," the target of growing publicity and pressure campaigns. In some ways, the electronics industry has learned from the mistakes of the garment and sports equipment sectors.

In 2001, the Global e-Sustainability Initiative (GeSI) was formed in Europe, and in 2004, U.S. tech corporations established an "Electronics Industry Code of Conduct," with the Electronics Industry Citizenship Coalition (EICC) formed in 2007. EICC now has 45 member companies representing 3.4 million employees and $1.2 trillion in sales.

EICC is trying to establish its code of conduct as the common denominator for the entire industry and to conduct joint or shared factory audits to overcome the "audit fatigue" of monitoring dozens of different codes. EICC companies have established the usual corpo-

rate social responsibility (CSR) or sustainability departments, and have issued the usual glossy annual CSR reports.

The electronics industry definitely is ahead of the historic curve in jumping into numerous "stakeholder engagement" activities with labor rights and environmental, non-governmental organizations. The industry's PR campaigns are more polished than those of garment or toy transnationals.

But in a more fundamental way, the electronics industry is making exactly the same mistakes as the sweatshop targets of the 1990s. The all-voluntary EICC code of conduct has been heavily criticized for not including key provisions of the International Labor Organization's (ILO) core labor rights conventions.

The monitoring of EICC code compliance in supplier factories has been done through "self-assessment" questionnaires and discredited in-house and "third party" audit protocols – all with only a small percentage of plants in the supply chain. EICC's 2008 annual report acknowledges that 25 percent of member companies do not even require a "corrective action plan" of their suppliers when "a major issue was identified."

Lack of transparency also is a major issue as the audit reports of supplier factories are not publicly available, and there is no independent verification that violations of national law or company codes have been corrected. Nor is any information available about measures, if any, taken to prevent these violations from occurring again.

Except for Dell and Hewlett Packard, the names of sub-contracted supplier companies are not disclosed by the industry. The name and location of the factories actually producing brand name consumer goods are not reported by anyone.

Not surprisingly, EICC and individual corporation audit summaries indicate a global supply chain with many problems. Industry CSR leader HP reported in April 2009 on its 2008 audits of 129 factories, saying that 99 plants required follow-up visits due to code non-compliance, and that the "two sections with the greatest number of major non-conformances – health and safety and labor – have improved less than other areas."

HP reported 51 percent of audited facilities violated code provisions on working hours, while 26 percent to 50 percent of facilities violated wage and benefits requirements. When Apple re-

ported the results of its 2008 supplier audits, it noted that 59 percent of plants violated working hours and day of rest provisions, 41 percent violated wage and benefit requirements and 26 percent of facilities violated code prohibitions of discrimination (usually worker pregnancy tests and related firings).

Many similarities exist between electronics and the garment/toy/sports equipment sectors – same overwhelmingly female, often migrant, workers; same extended supply chain structure; same rapid shuffling of suppliers and factory locations; same problems with wages, hours and labor practices; and similar problems with workplace health and safety hazards.

Unfortunately, the reasons for continuing sweatshop conditions in electronics are the same as those for ongoing sweatshops in other global industries:

➤ A schizophrenic and fatally-flawed business model in which nominal CSR codes always are trumped on the factory floor by the "iron triangle" of ever-lower prices to suppliers, same high benchmark for quality, and often shortened delivery times; and

➤ The lack of any meaningful participation by workers in plant-level occupational safety and health programs.

OUTSOURCING

The electronics industry has followed other consumer product sectors in outsourcing almost all of its production. Now, 75 percent of computer products are made by "contract manufacturers" (CMs) rather than by their "original equipment manufacturers" (OEMs). Several of the CMs, such as Hon Hai/Foxconn or Flextronics, totally are unknown to consumers, but generate billions in sales to the OEMs and their ultimate retailers, with hundreds of thousands of workers throughout Asia.

So the pattern is set by the OEMs' inherently contradictory business model that on the one hand, demands the lowest possible production costs and ever-declining payments to contractors, while on the other hand, demands contractors comply with the corporate code of conduct, all national laws and many international standards. The contractors are supposed to do the same with their own sub-contractors and suppliers – all without the higher levels providing adequate resources to the lower levels of the supply chain.

The end result is a system where code compliance is routinely "gamed" by contractors who generate multiple sets of (falsified) books for wages and hours to meet the requirements of clients' codes of conduct. It is a system where unmarked, uninspected shadow factories produce the bulk of goods while code monitors are taken to clean, calm and well-lit trophy factories around the corner. It is a system where workers routinely are coached how to answer auditors' questions or, less politely, bribed or intimidated or threatened to give the right answers about hours of work, pay and working conditions.

All the details of how this done in global supply chains can be found in Alexandra Harney's 2008 book, *The China Price: The True Cost of Chinese Competitive Advantage*, and T.A. Frank's article in the April 2008 *Washington Monthly*, "Confessions of a Sweatshop Inspector."

Compared to the garment, toy and sports shoe sectors the electronics industry has the same sort of unilaterally developed code of conduct, the same ineffective and non-transparent code monitoring systems and the same contradictory business model and command-and-control, management systems approach.

NO INPUT FROM WORKERS

The electronics industry added its own special twist to sweatshop manufacturing – the introduction of mass, temporary-help agency work forces, the most precarious and least-paid form of employment. This kind of low-cost production is hailed as the wave of the future.

The Mexican electronics industry centered in Guadalajara now consists of 55 percent to 60 percent temporary help agency employees, or some 240,000 workers employed by 60 different temporary agencies. These "permatemp" workers have low pay and virtually no benefits, and, of course, do not work for any of the global electronics giants whose products they make.

The second CSR fatal flaw is shared by both the electronics industry and the previously recognized sweatshop sectors – the lack of any meaningful participation by production workers in plant health and safety programs.

The only way to have effective workplace health and safety programs in the giant electronics supplier factories

is to integrate informed, empowered and active plant floor workers into critical EHS activities such as facility inspections, accident investigations, hazard corrections and peer training.

This has been recognized by leading global manufacturers for some time. Back in 2002, Doug Kahn, then CSR director for Reebok, told the *London Financial Times*: "We have inspections of factories, both announced and unannounced. But we just don't have the assurance that things will be the same the next day. Factories in China are incredibly sophisticated at finding ways to fool us. The best monitors are the workers themselves."

Despite this history, the electronics industry has not integrated workers into any aspect of their CSR programs or their elaborate, top-down code monitoring systems. The industry has learned, at least, to talk about "capacity-building" of suppliers and "encouraging supplier ownership" of CSR programs.

"We recognize that auditing is not the goal itself," EICC's 2008 annual report declares, "it is the first step in a process of learning and collaboration … that will allow us, and our suppliers, to work together to create sustained, long-tem improvement in conditions in the supply chain."

However, this heralded collaboration

Selected List of Reports on Occupational Health & Safety, Environmental Issues and Labor Rights in the Global Electronics Industry

Configuring Labour Rights; Labour Conditions in the Production of Computer Parts in the Philippines – *http://www.somo.nl*

Buy IT Fair; Guideline for Sustainable Procurement of Computers – *http://www.procureITfair.org*

Report: Round Table for the Electronics Industry and Civil Society Organizations; Improving Labour Standards in the Global Electronics Industry, Defining Strategies that Work – *http://www.goodelectronics.org*

The Public Price of Success; The Costs of the Nokia Telecom SEZ in Chennai for the Government and Workers – *http://sez.icrindia.org*

Labour Rights in Global Production Networks; An Analysis of the Apparel and Electronics Sector in Romania – *http://www.goodelectronics.org*

Computer Connections; Supply Chain Policies and Practices of Seven Computer Companies – *http://www.somo.nl*

The EarthECycle Pittsburgh "Recycling" Scam – *http://www.ban.org*

Out of Control: E-Waste Trade Flows from the EU to Developing Countries –*http://www.swedwatch.org*

2008 Global Citizenship Report – *http://www.hp.com/hpinfo/globalcitizenship/gcreport/downloads.html*

Playing with Labour Rights: Music and Game Console Manufacturing in China – *http://makeitfair.org*

Waste Without Borders in the EU: Transboundary Shipments of Waste – *http://www.eea.europa.eu*

High Tech Misery in China – *http://www.nlcnet.org*

Playing with Labor Rights: Music Player and Game Console Manufacturing in China – *http://www.somo.nl*

Toward a Just and Sustainable Solar Energy Industry – *http://www.svtc.org*

2008 Annual Report, Electronic Industry Citizenship Coalition – *http://www.eicc.info*

Supplier Responsibility 2009 Progress Report – *http://www.apple.com/supplierresponsibility*

Genuine Worker Participation: An Indispensable Key to Effective Global OHS – *http://www.igc.org/mhssn/PCIH08_GBrown.pdf*

Silenced to Deliver: Mobile Phone Manufacturing in China and the Philippines – *http://www.somo.nl*

Mobile Connections: Supply Chain Responsibility of Five Mobile Phone Companies – *http://www.somo.nl*

Electronic Waste: EPA Needs to Better Control Harmful U.S. Exports through Stronger Enforcement and More Comprehensive Regulation – *http://www.gao.gov*

The Dark Side of Cyberspace, Scholars and Students Against Corporate Misbehavior – *http://www.sacom.hk*

High Tech, No Rights? One Year Follow-Up Report on Working Conditions in the Electronics Hardware Sector in China – *http://www.sacom.hk*

Looking for Mickey Mouse's Conscience – A Survey of Working Conditions of Disney Supplier Factories in China – *http://www.sacom.hk*

Export of Electronics Equipment Waste – *http://www.ijoeh.com*

Connecting Components, Dividing Communities: Tin Production for Consumer Electronics in the DR Congo and Indonesia – *http://makeitfair.org*

Gender Aspects; Production of Next-Generation Electronics in Poland – *http://makeitfair.org*

Capacitating Electronics: The Corrosive Effects of Platinum and Palladium Mining on Labour Rights and Communities – *http://makeitfair.org*

Powering the Mobile World: Cobalt Production for Batteries in the DR Congo and Zambia – *http://www.swedwatch.org*

Electronics Multinational and Labour Rights in Mexico, Second Report on Working Conditions in the Mexican Electronics Industry – *http://www.goodelectronics.org*

Source: July 2009 – Maquiladora Health & Safety Support Network

does not extend to plant workers who are committed to improving working conditions, who are on site all day, who know the problems and can suggest possible fixes and who can verify if corrective actions actually work, and if the code monitoring is being gamed.

Here, the electronics industry is in the same boat as almost all other global supply chain operators. It's a shame, though, that such a cutting edge industry lags behind others that have recognized that changing purchasing practices, integrating CSR and sourcing policies and genuinely empowering workers are the road forward to ending sweatshops.

MINING PRACTICES JEOPARDIZE WORKERS

Sweatshop manufacturing practices are not the only problem the global electronics industry faces. The massively destructive mining industry producing essential metals for electronic goods increasingly is seen as a responsibility of the brand name electronics retailers as well. Mining's impact on the natural environment – and the people who live it – is now something that HP, Dell, Apple and Nokia cannot avoid.

Then there is the other end of the use cycle – the dumping of hazardous e-waste in the developing world – is another "can't avoid" responsibility for electronics producers. There are now 1 billion personal computers in use in the world, and that number is expected to double by 2015. Preventing sweatshop recycling of discarded computers in dangerous, polluting operations will be essential, not to mention the recapturing all the raw materials that went into these computers in the first place.

The electronics industry has the opportunity to lead the way toward a global supply chain without sweatshops, ecological destruction, social dislocations, disease and deepening poverty. If the industry does not rise to the occasion, the "new Nike" will become the 21st century sweatshop poster child that the original Nike was in the 20th century. **EHS**

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