

Ports of Mucuripe and Pecém, Ceará, Brazil: restructuring process and its impact on workers' health¹

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Abstract. This paper presents a comparative study of working conditions and health hazards of two ports in the state of Ceará: Mucuripe and Pecém, focusing workers in the various categories involved in the operational activities of the two ports. The aim is to investigate changes implemented by the restructuring process of ports arising from the Port Modernization Act. In the case of Ceará, the organization and control of work at the mentioned ports occur differently: Mucuripe, the oldest port, had to adapt to the changes enforced by the Modernization Act and Pecém, called Port Terminal, inaugurated in 2001, “was born modern”. To achieve our objective, we carried out field work, using Ergonomic Work Analysis. Systematic observations were made of the various activities carried out by workers, as well as interviews with managers, workers and trade unionists. Container operations and other activities of the two ports were recorded in film and presented to groups of workers (focus groups) in order to better understand work organization and the main differences in tasks carried out in the two ports. Each reality presents different characteristics regarding port operations, type of work and labor control. Results indicate that due to the technological innovations, the restructuring process reduced some risks, but brought new occupational hazards and intensification of work.

Keywords: Dockworkers, port systems restructuring, safety and health

1. Introduction

Ports are the "corners of the world" and from their characteristics it is possible to extract elements of a specific nation or locality, as well as global changes. The era of capital trans-nationalization is imposing a series of necessary adaptations on ports. The new mode of production has promoted a trend towards restructuring of ports around the world with the aim of dominating a strategic sector: the movement and trading of goods. Among the determinations of the new demand on port systems, two concerns occupy key positions for costs reduction and optimization of ports: the privatization process and the organization of manpower. This movement is also called “devolution” process of the port industry: the transfer of

functions or responsibility for the execution of programs and services from the federal government to another entity, which may be another instance of government or a non-governmental organization, community group, client association, business or industry. While this definition does not include privatization, the extent of devolution may range from partial to full privatization [2].

This research is a comparative study of working conditions and health hazards involved in the operational activities of two ports of Ceará, Brazil: Mucuripe and Pecém, in view of the changes implemented by the restructuring process under the Port Modernization Act [1]. The restructuring process imposed by the Act has brought changes in the organization and control of dockwork, directly affecting the working

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conditions of those working in ports and, indirectly, to those living in regions where new ports are being constructed. The modernization has changed the way of conducting and organizing work, accompanied by an extensive process of privatization and investment in new ports technologies.

Of the two ports in study, the port of Mucuripe, also known as Port of Fortaleza is the eldest and has been under changes since the Act. It was built between 1939 and 1952 and came into operation in 1953. The Port of Fortaleza is a public port that has a Port Authority Council (CAP) and an Office for Manpower Management (OGMO). The work is performed by “eventual workers”, so that the work system is still based on the hiring of labor from a pool of workers, now linked formally to the OGMO and Trade Unions. The formal bond is not a working contract but an allowance to work in the port. In contrast, the Port of Pecém was born modern. In operation since 2001, the working conditions and manpower management are configured according to the Port Modernization Act. The activities, including workers’ contracts, are done by port operators (accredited private companies). It has no CAP or OGMO, but a government agency - Ceará Portos, responsible for the supervision of all port operations in the Pecém Terminal. The services are provided by companies called “service operators” that make use of their own workers with individual employment contracts [7].

Thus, in the case of Ceará, the work organization and manpower control occur differently in the two ports, leading, probably, to differences in workers’ health hazards and health conditions. There are no reliable information about the actual health situation of dockworkers as well as the impact of the new order on the work organization and its risks, making it difficult to set priorities for planning health interventions.

2. Methods

In order to achieve the objectives proposed by this study, we carried out field work, using Ergonomic Work Analysis and interviews. Systematic observations were made of various activities performed by workers, as well as interviews with managers, workers and trade unionists in the two ports under study. However, in this article, we describe only part of the analysis related to the interviews with trade unionists, workers and safety professionals, emphasizing the main differences between the two ports in labor organization.

A total of 20 interviews were conducted, 4 with health and safety professionals of Mucuripe’s OGMO and Pecém’s Ceará Portos and 16 workers of the two ports: trade unionists and stevedores. Some of the workers had working ties with the two ports. The individual interviews were unstructured and took place at the OGMO, Ceará Ports, and Trade Unions. Besides that, three focal groups with Pecém workers were also conducted.

During the interviews we sought to clarify how the work organization occurs at the moment, how it was before the changes brought about by the Port Modernization Act and the main differences between the two ports.

The interviews were all recorded with the written consent from the interviewees, and transcribed. The analysis was performed with the help of the ATLAS TI (version 6.2) and the main categories separated according to the study objectives and units of meaning found.

3. Results

Three of the major categories found in the discourses analyzed are described here: the work conditions and organization before the Act; afterwards; and the conditions in Pecém Port Terminal.

The work before the Port Modernization Act

The main feature of dockwork, before the Act, was its unique form of labor contract, the “eventual work”, when compared with other workplaces. This aspect marked very deeply the life of the workers and, above all, their position and representation in relation to the employers (capital). The trade unions, hence the worker class, were the aggregators and managers of labor. Trade unions were not only mediators of manpower, but had control of the work organization, so that it was not the employers who determined the amount of workers per activity (the “ternos” - team), work hours, the insertion and withdrawal of workers in stevedoring and the other activities, or the value of wages and social rights. They were workers without a boss [8]. As one respondent said, *this was one of the best freelance works that you could get: when we wanted to work, we worked, and when we wanted to leave, we could. And we did not have to endure abuse from anyone* (Worker).

However, working conditions were *degrading and dangerous*. The tasks needed considerably physical strength and during cargo movement - with its de-

mands and dangers – the workers were exposed to health hazards, leading to a series of illnesses such as back, upper limbs, knees and other musculoskeletal problems, as well as work related circulatory problems with high levels of physical stress and accidents, often fatal.

There was, officially, no concern for safety and health. This does not mean that workers within the team did not value the safety of others, but that minimum safety requirements as individual and collective protective devices, ongoing maintenance of machines, among others, were not offered to them. So, regarding unsafe conditions and accidents, it is difficult to find a stevedore who has no marks on the body or has not lost a friend or colleague. The fatal accidents keep memories of crushing, drowning and decapitations, images hard to forget.

According to Dejours [4], this exposure to an area of actual risks at work, creates, within a professional category, a tacit defensive ideology to deal with the anxiety due to threats to life during the performance of activities. However, the social cost of such strategies is the naturalization of the risks and an attempt to challenge them, in order to have the illusion that one has control of the situation, which can become an aggravating aspect.

Given the nature of casual or eventual work, the workers describe a kind of "dropped" lifestyle: *they work when they wanted to work and sometimes they received high wages for one job*. On these occasions, they use to celebrate *drinking all the money*, without any concern for future needs, leading to social unrest and drug problems. This "undisciplined" lifestyle produces a social representation of a 'low status' category [9].

Dockwork was characterized by its casual nature: the individual was enrolled in the trade union and received a number that was used in the workers rotation system; he was not forced to work and could choose not to attend to any activity for a long period. The workday was 12 hours at work and 6 hours (or less) of rest. Besides that, the workers decided, at one point, that the same team should finish the cargo of one vessel, independently of the total cargo to be handled: [...] *for example, I worked in a vessel with 25 thousands ton of rice and worked 16 nights without going home. But if I wanted I could not work...but the wages were very good, when we finish the work we had good money*. (Worker).

The remuneration was calculated by tons of cargo handled. It is inferred from the worker discourses that, on one hand, working conditions were stressful, but, on the other, the wages compensated, for the steve-

dores, the exposure to risks. What we see, indeed, is the balance between financial and health risk. Workers tend to feel satisfied, even when exposed to risks, if they are well paid.

Another component of the port culture that deserves mention was the control of the labor market by the unions. In the work of stowage, the profession was passed from father to son for generations, so that families used to work together [5].

One can deduct from the workers explanations that before the Act, there was a greater autonomy in the operative mode of the activities, there was a *savoir-faire* that identified the profession and despite the dangerous working conditions, the dockworkers interviewed said they liked their profession.

Consequences of port modernization: the work in the Mucuripe after the Act 8630/93

With the Port Modernization Act major changes in the workers and work organization occurred. Before the Act, the unions were alone responsible for selecting and recruiting people to work in stowage and other activities in the port. The new regulation removed the union power. It establishes the creation, in each port already in activity, of an OGMO with the aim of organizing tasks that were once done exclusively by the union which, consequently, caused the disaggregation of trade unions strength. *The monopoly was on the unions' hands. When the OGMO came, it took all the money and the power of direct negotiation and supervision. So, the OGMO took too much of what belonged to the union*. (Worker).

Therefore, the Act represents a major defeat of the working class for the capital. The goal of this measure was the weakening of the dockworkers' political strength by fragmenting the workers unions. The new regulation isolates the category and hence the strength of union representation. *The last time we had a strike was in 1998. And not to undermine the entrepreneur, who is our friend, because the union is so, we must be friends with the entrepreneurs, because they pay the load and we work*. (Trade Union Representative).

The function of the union in this new imposed political positioning is more restricted and targeted to welfare causes, in relation to general health, sport, leisure and as a support for workers who are awaiting service.

Given this scenario, workers assume an attitude of dissatisfaction about the future of their profession. *I see that the future will be difficult. It is not going to be the way it was before the ACT. It'll be all in the*

hands of the entrepreneurs who will practically enslave the laborers. Today it's almost like that. Before we worked and were paid the just amount for putting your life at risk every day. We do a work that will enrich our city and our state and it is not recognized. So I 'm sad about it. Because I see that over time the entrepreneurs will take all, they will get the 'cake biggest slice' and will stick with it, giving a small portion to the worker. (Worker).

The idea of the passage above reflects the uncertainty about the direction that the change in the work organization tends and the low appreciation of the profession.

However, regarding the management of the work force by the OGMO, an advantage was unanimous in the respondents discourse: the correct payment of the workers' rights. The workers acknowledge the corruption that existed inside the trade unions before the Act, which sometimes did not pay the wages, taxes and benefits due to workers. In addition, management of labor by OGMO led to destabilization of privileges for those who had a connection or greater contact with the union board. In this sense, the Act, through OGMO, removed privileges, but submitted workers to pay conditions imposed by employers.

The reform has combined, in an integrated way, two essential items: the control of manpower and the introduction of new technologies.

The introduction of new technologies in dockwork provided better working conditions, especially with regard to the decreased need for physical effort, although they have not eliminated the manual labor: the modern and old can be seen in the same space. Thus, the "containers technology" has led to less exposure to the risks of performing heavy work, but submitted the workers to a high rhythm in order to keep average earnings for their survival.

The containers technology brought about a demand for more skilled workers: instead of courage and stamina, the job requires skill and training. Thus, the technological innovation applied requires a different employee. Those who cannot qualify for the handling of these new technologies are limited to manual activities and lower payments.

Fabiano et al [6] studying the rate of accidents in the Genoa port (Italy), found an increase in accidents rate after the introduction of the containers technology and concluded that the increase of young or low experienced workers in handling container caused an increase of the risk for occupational injuries and that the increased expansion of shipping container utilization is not connected to a correspondent human factor

safety implementation. The same seems to be the case in the Mucuripe port.

The Act also established another change, now in relation to working hours. Beforehand the same work team performed the activity, remaining on the ship to unload the total load, working 12 hours by 6 hours of rest, on average. The working journey established by the OGMO is the reverse: 6 hours of activity a day and between 11 and over of resting. The issue of working hours constitutes an *abuse*, according to workers, once tied to the work journey is the payment due and a consequent loss of purchasing power. *You go to work and you do not receive enough money. Then you go home and see your family asking for something and you don't have the ability to give. Your children asking for something, asking to go to school and you don't have money. What do you do? (Worker).* Chu [3], analyzing the unions role in three different port contexts, shows that in one of the ports focused, the New Zealand port, the same conflict occurred during the processes of port reform: the change in the hours of work led to a conflict, followed by a 22 days strike.

The reduction in work and payment opportunities and the resulting insecurity increased the need for a more constant presence in the port in order not to reduce the family standard of living.

In addition, the work at the Port of Mucuripe has been threatened by the activities of the Port of Pecém, which is gaining importance and is diverting important ships to its modern terminals. It is a perverse strategy that puts Mucuripe in a fierce competition.

The Pecém Terminal: the modern inside the modern

In Pecém Terminal, according to one of its leaders, *there are no stevedores*. This speech emphasizes the radical shift that occurred in labor relations and, especially, the collapse of the dockworker identity, who now becomes just *a worker*.

Although the stevedores of Pecém maintain formal labor contracts with carriers that operate at the port, not all carriers have changed the way of remuneration. In one of the two largest active operators, the payment is made according to the load handled: *the workers earn the equivalent of a percentage of cargo handled, just as in the Port of Mucuripe* (Trade Union Representative). In the second major company, the change resulted in workers with monthly earnings, with no relation to the cargo handled.

Thus, in the Port of Pecém, dockworkers have formal employment contracts with accredited service providers. The work is organized in teams, but the

formation of the teams is done by scale and the worker cannot decide which ship he will work. Compared to the Port of Mucuripe, there is greater control and supervision of activities and the work pace is higher. However, labor relations, compensation, training and supervision differ among the accredited companies. According to Pecém workers, *those stevedores who earn a percentage of cargo handled (company X), work at a faster rate and can unload a ship in three times less time than the employees of the other major company (company Y) (Worker).*

It was observed that workers have a preference for working in the company that offers productivity benefits besides the fixed remuneration. In the workers discourse, it was evident that the company that has the best payment system - payment by productivity of the entire team - is recognized by the workers as the best company to work, including providing better training and safety and health care. This company has hired workers originally from the Port of Mucuripe, therefore, with more experience. In this case, it is acknowledged that the team qualifies for higher work performance, while in the other company cited in the interviews, the worker receives fixed remuneration, without pay for productivity, and the company does not require any kind of previous training: learning is done in the development of work, contributing to an increased risk of accidents.

One aspect cited as common among the Pecém companies is the perspective of career growth with greater earnings. However, given the high work pace, the conditions of risk exposure are similar to the Port of Mucuripe.

4. Discussion

The interviews and observations showed that the work organization of Pecém and Mucuripe show significant differences that impact the health and well-being of workers. In a sense, the essence of work in both ports is the same, that is, machinery and operations are similar, as well as the exposure to risks such as heat, noise, weather, physical exertion and accidents. The main changes consist in the control of the work force and labor relations, concerning the form of hiring and remuneration of workers, supervision and rhythm.

In Mucuripe, the dockworkers are "occasional or eventual workers", who are tied to the OGMO and do not have formal employment contracts. Therefore, there is some autonomy in choosing the day shift and the type of load they want to work with. The steve-

dores prefer the "good load", ie, one that allows for greater productivity and, therefore, higher earnings. The work scale is done by calling workers three times a day, but the legislation allows the worker to stay 90 days without working before being discredited by the OGMO. The workers payment is according to their productivity. However, the lack of regularity in work affects the financial stability. The journey is 6 by 11 (6 hours of work and 11 hours rest). Work supervision, use of personal protective equipment and enforcement of safety standards is done by the OGMO.

Despite the loss of autonomy, compared to the period prior to the Port Modernization Act, there are still remnants of the past in Mucuripe that allow for greater freedom and pleasure in the work. It is worth noting that the workers registered in the OGMO are mostly workers that were already working in port functions before the Act and, therefore, learned the craft in the context of family relationships and friendship, which was the established process for admission to the functions. Tacit knowledge, passed from "father to son", the wisdom gained in shared activity, as well as the professional identity and pride are still very well impregnated in these workers and influence their activities, and to some extent, the confidence on their partners, increasing safety.

The results indicate that due to technological innovations, the restructuring of production has reduced some risks in the two ports, but brought new occupational hazards and enabled intensification of the pace of work. Changes were noted in the two ports in work schedules, in the definition of teams and in the form of compensation of employees, modifying the way of doing work.

Considering the "devolution continuum" proposed by Brooks [2], the Port of Mucuripe is in the first stage: it is still a port with government management, but with colors of the private partnership type of regulation. On the other hand, in Pecém there is a full partnership between government supervision and private operation. What is not acknowledged by the discussion proposed by Brooks [2] is the exposure to risks that necessarily changes depending on the kind of "devolution stage" the port is in. The private system will, if regulations are not fully enforced, result in a work organization bound to lead to a greater rate of accidents.

5. Final Considerations

It can be concluded that the word that best describes labor relations in the two ports is *precarious*. The control of manpower removes the power of the workers representation, with loss of autonomy and rights that have been conquered and built by historical struggles. Curious to note is that the technological and organizational changes in the port environment are praised by some workers who view the introduction of the new technologies as positive, once it reduces the physical effort involved in the work. The OGMO implementation is also recognized as positive in relation to payments stability. However, dockworkers show dissatisfaction with the increasing vul-

nerability of the union movement, the loss of autonomy, the devaluation of the less qualified worker and the cooptation of subjectivities from the discourse of individual competence and the preference for technique over experience.

Another aspect of this ongoing restructuring process is manifested by the fear of job loss, which would mean a loss of means of survival, especially for older workers who face the decline of their purchasing power. They are subjected to forms of negotiation not covered by law and too opportunistic, supported by the discourse of port modernization.

Table 1 summarizes the major differences among the three conditions focused in the study.

Table 1
Main differences in work organization comparing Mucuripe before and after the Act and Pecém.

	Mucuripe (before the ACT)	Mucuripe (after the ACT)	Pecém
Work force management	Trade Unions responsibility	OGMO	Private companies
Health and safety issues	Trade Unions responsibility	OGMO	Private companies
Work journey	12 hours of work by 6 of rest	6 hours of work by 11 rest	6 hours of work by 11 rest
Work rhythm	High	Higher	Depending on the company
Exposure to risks	High	High	High
Wages	High	Low	Low

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