

**ThyssenKrupp Annual Shareholders Meeting, Bochum, 29th of January 2016**

**Delia Rizpah Hollowell**

Hello and thank you for having me here to speak at the Annual General Meeting of ThyssenKrupp AG. My name is Delia Rizpah Hollowell, and I am currently studying for a PhD in Anthropology at University College London. My focus is on the anthropology of health, and medical anthropology.

My PhD examines community perceptions and experiences of the health impacts of large-scale industry and ‘Corporate Social Responsibility’ interventions in Santa Cruz, Rio de Janeiro, Brazil. My research has been undertaken in the context of the contention surrounding ThyssenKrupp’s Companhia Siderúrgica do Atlântico (alternatively called the TKCSA or the CSA).

I have just come back from one year and three month’s fieldwork, living opposite the TKCSA in one of its neighbouring residential areas. ThyssenKrupp’s Companhia Siderúrgica do Atlântico is situated in what is called the ‘industrial zone’ of Santa Cruz, but there have long been many residents living in extremely close proximity to where the factory is now located. On the Avenida João XXIII there are people living as near as 543 meters away from the nearest emission source within the factory compound, and less than 10 meters away from its boundary<sup>1</sup>. Many of the residents living on the Avenida João XXIII are living so close to the factory’s train line, that they complain it causes structural damage to their homes and that the train noise disrupts sleep. This can be compared to the German regulations, which set out that in ThyssenKrupp’s own State of North-Rhine Westphalia, the minimum distance between the nearest emission sources of a steel mill and residential areas must be at least 1500 meters (NRW, 2007).<sup>2</sup>

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1 This information is taken from my own measurement of the distance between the nearest houses on the Avenida João XXIII and the boundary of the TKCSA, using Google Earth measuring facility.

2 Abstände zwischen Industrie- bzw. Gewerbegebieten und Wohngebieten im Rahmen der Bauleitplanung und sonstige für den Immissionsschutz bedeutsame Abstände (Abstandserlass): RdErl. d. Ministeriums für Umwelt und Naturschutz, Landwirtschaft und Verbraucherschutz (NRW) - V-3 -8804.25.1 vom 06.06.2007, page 3: "2.2.2.3 Der Abstand ist zu messen an der geringsten Entfernung zwischen der Umrisslinie der emittierenden Anlage und der Begrenzungslinie von Wohngebieten. Unter Umrisslinie ist die Linie im Grundriss (Vertikalprojektion) der Anlage zu verstehen, die ringsum die Emissionsquellen (z.B. Schornsteine, Auslässe, Tankfelder, Klärbecken, schallabstrahlende Wände oder Öffnungen) umfasst. Bei mehreren Anlagen auf einem Werksgelände ist für die Bemessung des

Much controversy has developed around the ThyssenKrupp and Vale joint venture 'Companhia Siderúrgica do Atlântico'. Shortly after its installation the CSA caused two critical incidents of pollution, in which metal dust rained down on the local area (Firpo de Souza et al, 2011; Viga Gaier, 2012). The residents recall this dust reaching fifteen centimetres deep along the Avenida João XXIII, which the company attempted to dampen down by spraying water onto the street. After ThyssenKrupp CSA installed a filter, a finer dust still falls over the local residents' houses. TKCSA representatives maintain that the dust is only graphite<sup>3</sup>, but the Oswaldo Cruz Foundation's (FIOCRUZ) tests on the settled dust showed the presence of Aluminium, Arsenic, Barium, Bromine, Calcium, Cadmium, Cerium, Chlorine, Chromium, Copper, Iron, Potassium, Lanthanum, Magnesium, Manganese, Neodymium, Nickel, Phosphorous, Lead, Praseodymium, Rubidium, Sulphur, Strontium and Zinc (Firpo de Souza, 2011).

The people I got to know during my time in the area expressed their fears about living day to day with this dust, that blackens their floors, dirties their clean washing and accumulates on the leaves of their house plants. They frequently asked what this metallic dust must be doing to their lungs. Many people associate their struggles with allergies, with the pollution from the CSA, as they attempt to deal with tearing eyes and almost permanent cold like symptoms. These ailments seem to have no diagnosable causes, and they linger, causing a sense of anxiety as people try to understand what is happening to them, amidst a paucity of official information. Health complaints have been associated with the pollution and residents are presenting with respiratory, ophthalmological and dermatological complaints (Firpo de Souza et al, 2011). While working at one of the local health centres I was told by doctors, nurses and community health visitors that they have noticed a significant growth in the amounts of patients affected by respiratory and dermatological problems, especially amongst babies, children and the old.

For more than a decade the industrial area of Santa Cruz has had particularly high concentrations of total suspended particles (particularly airborne particulate trace metals), as well as trace metal accumulation in water and organisms in the area (Lacerda et al., 1987; Karez et al., 1994; Copeland et al., 2003; Molisani et al., 2004; Quiterio et al., 2004). Particulate matter can be defined as "small particles consisting of solid or liquid droplets suspended in air" (Davidson et al., 2005: 737) and results from a survey completed in 2002

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notwendigen Abstandes regelmäßig die Anlagenart mit dem größten erforderlichen Abstand gemäß Abstandsliste maßgebend. Geringfügige Unterschreitungen der Abstände sind akzeptabel."

<sup>3</sup> In a personal visit to the steel mill in the company's 'Portas Obertas' a company representative stated that the dust that settles on local houses is made up of Graphite, and therefore does not present any harm to health.

showed that the concentrations of some particulate metals in the area were between two and four times higher than US-EPA standards and higher than the average value obtained for US and European cities (Quiterio et al., 2004). It is a matter of record that there has been an increase of more than 1000% of iron concentration in analyses of the air before and after the development of the TKCSA (Firpo de Souza et al, 2011; Mapa de conflictos envolvendo injustiça ambiental e saúde no Brasil, no date) as well as a 76% rise in CO<sub>2</sub> emissions in the metropolitan area of Rio de Janeiro as a whole (Kato and Borba de Sa, 2013). A study published in 2013 showed that the total suspended particles in the areas of the Conjunto Alvorada and João XXIII exceed Brazilian regulations and that the levels of Particulate Matter 2.5 exceeded the World Health Organisation's guidelines (Mateus et al., 2013; Mateus et al., 2012). These studies also suggested that the principal source of PM2.5 in this area of Santa Cruz, is industry.

The TKCSA is the largest company in the Association of Companies of the Industrial District of Santa Cruz and Adjacent Areas (*Associação das empresas do Distrito Industrial de Santa Cruz e Adjacências*). This association has built a barrier in the river São Francisco, in order to control the flow of water, and principally to secure access to fresh water for industrial usage. This has had a drastic effect on local fishermen (of which there are hundreds) who were previously using the river as the main source of their livelihood. The amount of fish available in the river, and in the Baía de Sepetiba, is thought by the fishermen to have drastically reduced since the CSA was first installed, both as a result of pollution and because of the vibrations caused by the initial building project. However, this barrier in the Canal São Francisco has effectively paralysed most fishing activity in the area. The effect is that hundreds of fishermen and women have been left unable to work. For many of these low-income households, the financial impact of this has been disastrous, and they have been experiencing severe financial difficulties for nearly eight months. Although the fishermen and women have pursued this some way through the Brazilian judicial system, the TKCSA has not yet compensated the majority of the fishermen. Furthermore, until very recently, the fishermen have been expected to navigate through a small gap in the centre of the barrier which is hazardous, with very strong currents and whirlpools forming in and around it (Fernandez, 2015a; Fernandez, 2015b; PACS, 2015). This has caused accidents, and damage to boats and in the vast majority of cases no compensation has yet been paid.

In the light of these issues, I have the following questions I would like to address to ThyssenKrupp AG:

- Does the TKCSA monitor the amount of PM2.5 in the air, at its factory site and the adjacent residential areas? If so, will you provide this information to residents of the areas surrounding the factory?
- ThyssenKrupp Companhia Siderurgica do Atlantico has set up permanent measuring stations in cooperation with government agencies, in the areas of Santa Cruz and Itaguaí. In ThyssenKrupp's responses to the disclosable shareholder motions for ThyssenKrupp's Annual General Meeting 2016, you have stated that the air quality in the region is being 'transparently monitored'. However, I understand that the results of the measuring stations on and around the Avenida João XXIII are not available online. For example, I believe that the results from the permanent measuring station in the Municipal School Professora Maria Helena Alves Portilho in the Conjunto Alvorada are not publicly available. Will you be making the data from measuring stations on the Avenida João XXIII and the Conjunto Alvorada publicly available, and if so, when, and how?
- I understand that ThyssenKrupp's CEO has stated that ThyssenKrupp is working on a system to calculate what the content of dust emissions in Santa Cruz actually is. What is the current situation of this plan?
- Does the TKCSA possess a plan of response to environmental emergencies that provides for, among other things, a protocol for evacuation of local residents in case of accidents? If the answer is yes, then please provide details of the plan.
- More than 300 families in the local area have ongoing legal proceedings against the TKCSA. Will the TKCSA be compensating local residents for any medical impacts and rising medical costs, for any damage to houses, increased pollution in the local surroundings or for any general degradation of the local environment?
- Will the TKCSA support AEDIN (the 'Association of companies of the industrial district of Santa Cruz and adjacent areas') to compensate all the local fishermen negatively affected by the barrier across the river São Francisco?

Please provide answers here at the annual general meeting, and then also in writing.

I thank you once again for your time and attention.

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