UNIVERSITY OF HOUSTON
ORAL HISTORY OF HOUSTON PROJECT

Interview with: Dina Cappiello
Interviewed by: Carla Curtis
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Transcribed by: Suzanne Mascola

CC: It is 1:30. We are interviewing Dina Cappiello, environmental writer for the Houston Chronicle here in Houston, Texas at 801 Texas Avenue. Dina, if you would like to begin stating your name and what you do.

DC: Dina Cappiello. I am the environmental writer for the Houston Chronicle.

CC: And you have been discussing with me about getting your masters at Columbia in a very special field which will enable you to…

DC: I was trained specifically to write and cover these issues for the media. I am an environmental scientist by training who got a journalism degree. So, you know, this is my specialty. This is what I do. This is what I am an expert in.

CC: And you have been in Houston for how long now?

DC: I moved to Houston from upstate New York in November, 2002 to take the job here at The Chronicle and cover the environment for the paper.

CC: And in your investigations, and I know you do many, what major theme do you notice about the quality in the Houston environment?

DC: I mean, I think that, you know, a lot of people like to say that Houston is the most polluted city in America and I think that what is interesting about that- it is really what you are talking about. There are a lot of different kinds of pollution. There is water pollution, air pollution, waste. Actually all pollution is a form of waste, whether it goes into the air or in the land or in water. But when you talk about air, Houston has some pretty significant challenges. We are absolutely utterly unique when it comes to our smog problem, our ground level ozone problem. Most other cities, the smog problem is driven by automobiles. It is automobile

emissions that are creating the smog problem. Los Angeles is a good example. New York City is a good example. Atlanta is a good example. In Houston, data has shown that our air pollution, our smog problem is really connected to the industry and unlike other people, other places where everybody will have bad smog in one day, everybody in the metropolitan area will have bad smog one day, in Houston, you actually can see a fingerlike plume extending from the smoke stacks on the Ship Channel into a very narrow band and it will trigger one monitor and one neighborhood. And, as a consequence of this, we have very rapid formation of smog. You know, within one hour, it can go from very low levels to very, very high levels. And it can just soar in terms of the concentrations. And what is driving this are these compounds called highly reactive volatile organic compounds. And these are compounds that are uniquely associated with the petrochemical industry which we have in spades here in Houston, Texas, and Harris County. So, smog is one issue.

And then, on the other side . . . and we definitely rank. You know, we trade places with Los Angeles. In the last couple of years in terms of the number of days where smog or ground level ozone as it is called, violated the health standard in Houston, Texas, we were about 3 on that list after Los Angeles and the San Joaquin Valley in California. So, we are way up there in terms of being one of the dirtiest cities when it comes to ground level ozone. The second issue, which I have written extensively about and kind of was one of the first reporters to write extensively about this in Harris County, in the Houston area and in Texas, for that matter, is air toxics which are very different because unlike smog, they don't have a health standard federally so it is very hard to . . . everybody has their own standard or not even a standard - a guideline. And unlike smog which, you know, has been shown to exacerbate asthma, cause breathing ailments, these toxics, a lot of them are carcinogenic. A lot of them cause birth defects. A lot of them have neurological effects. And it just so happens that when you look at these air toxics, we are also a very high emitter of air toxics because of our industry. There are 182 air pollutants that are

recognized by the federal government but if you look at a few of those, benzene in particular, that does come from cars and automobiles but industries in Harris County release more benzene than any other county in the nation. Industries in Harris County release more butadiene - another carcinogenic chemical used to make rubber- than any other county in the nation. We are number one for a lot of these. And our other Texas counties - Jefferson County, Galveston County, Nueces County, are in the top 5. And when you look at that data, we are not just number one, we are number one way off the charts; where you are looking at hundreds of millions of pounds versus the next guy, the next state, the next county and the next state being 30 million pounds.

CC: Were the standards different in Harris County or in Texas than other states?

DC: Yes. We did a series here, "In Harm's Way." It ran in 2005. And one of the things I started looking into and getting into in that series was what standards there were for air taxies. And so, I started looking at other states. I looked at California, New Jersey, Louisiana- I looked at other states with refining and petrochemical capacity because obviously those guys would be on top of it because it is obviously going into their air and they know what is going into their air. And, you know, what you are talking about here is when I give you these stats about we emit more, there is a differentiation there. You are putting in a gross amount of air pollution into the air - X amount of pounds. When you talk about a standard, it is a concentration. So, what we are trying to get at here is what happens to this X amount of pounds? What does that do to our _____ air, the air that we breathe every day? What is the concentration of that chemical in that air and that determines how it affects your health. So, when I started looking at these concentrations, you know, I started getting into the very complicated science of risk assessment. What it really comes down to is how much risk do Houston residents want and desire, you know, and are they willing to have a greater risk because they have huge benefits from this industry-- it creates jobs, it creates taxes that we depend on. You wouldn't have many school systems in these places if it wasn't for BP in Freeport or Exxon in Baytown. So, you know, I think, my perception of Texas

as a reporter here that has been writing on these issues is the answer to that question is yes. Houstonians seem to say that we are willing to put up with a greater level of risk than perhaps other parts of the country would of these chemicals because of the benefits that we receive and the dependence we have on this industry economically. So, when you look at that, that is really true in how the state set its standards. The state of Texas, compared to other states that have set guidelines and in Texas, they are guidelines that are not enforceable; Louisiana has standards. The difference is Louisiana has an air pollution monitor in a neighborhood with a refinery. That pollution monitor violates their toxic standard, they can actually go after the company if they can prove that the company caused that level to be exceeded. That is a whole other problem. But in Texas, we have guidelines and what my research found is: a) not only are they much higher than other states - 300 times in some cases but they are also set at a higher risk level. So, when states look in and try to set the standards, many of them-- New Jersey would be an example-- set them at 1 in 1,000,000 risk level or 10 to the -6 risk level, and what that means is that if concentrations of that air pollutant violated that standard which was set at a 1 in 1,000,000 risk level for 70 years, 1 person in 1 million would be getting cancer from that chemical in addition to all of the other causes of cancer. So, that is how they do it. Now, in Texas, I found that our standards were being set from 1 in 10,000, sometimes 1 in 1,000, and in other states, you are doing 1 in 1,000,000. And so, largely what was happening and what "In Harm's Way" revealed is because the state was using standards that were much higher guidelines really… we have very extensive air pollution monitoring system here in Houston, Texas- probably than any other county in the country. When I started looking at this data year in and year out and comparing it to these guidelines- they are called effects screening levels in Texas, they weren't seeing the problem because the levels were so high that it was never triggered. But if you applied other ... so, what I basically did is I said, here is this data out there. Not even the data we collected, which we did collect our own data, but here is the data out there at these monitors and what we did at the

Chronicle is we said, do you know what? We are going to use a 1 in one million cancer risk, inhalation risk standard set by the EPA.

CC: So, these guidelines are different than EPA's?

DC: Yes, and that is because when Congress, in 1990, identified hazardous air pollutants, they said, what are we going to do here? Are we going to set standards or aren't we? And then they looked at ozone - ground level ozone is what we call a criteria pollutant which means that the EPA sets an ambient air quality standard for that pollutant. And that has been ... God! You look at particulate matter- another criteria pollutant- soot, the tiny little particles that come off of trucks and all that kind of stuff-- that has been battled in court for years. And they said, "Holy crow, we can't have 100+ chemicals go through that. We'll never get a standard." And in some cases, we still to this day don't know enough about the chemical to even set a standard. And so, they said, "We are going to deal with these pollutants by requiring companies to put on certain pollution control devices and if we control the pollution, levels of these things will come down." And, you know, the jury, I think, is still out on that. I mean, they are definitely coming down but they are definitely still a risk, and they are definitely a greater risk in Houston, Texas than other parts of the country.

CC: So, you find the emissions from the oil and chemical companies being the major significant problem?

DC: Yes, I mean, it is a significant challenge. You know, I mean, because we need commerce, we need the economy, we need those companies for a lot of things in this area and, you know, I have never seen an industrial plant in my career that had zero emissions. And it really comes down to the question of how well can they control it and are they controlling it to the best of their ability? And in my experience, companies will control it to the best of their ability if it is required.

CC: But not voluntarily?

DC: Not much voluntarily. Now, after our series came out and we exposed one neighborhood having very risky levels of butadiene in particular, two companies in the area did sign voluntary agreements with the state. One of those companies went on to sign an agreement with the City that is enforceable to reduce butadiene and its _____to zero- what it contributes.

CC: Has that been done?

DC: Well, actually, the latest data shows some promise in that one neighborhood. In the year since "In Harm's Way" published, butadiene levels in that neighborhood are more than 50% lower which is huge.

CC: But still high?

DC: They would actually be under the State's levels. I really haven't actually done that comparison whether they would be over the 1 in one million cancer risk level. But in that same report, the State goes on to say that Galena Park, Lynchburg Ferry, Texas City, all had monitors that exceeded the accepted risk here in Texas for benzene. So, this is a very hard thing to kind of crack because you are talking about a lot of different chemicals, you are talking about very localized impacts. You know, not everybody in Houston, Texas is being exposed to that level of butadiene- just the people that live next to these things you know, and it just gets even more complicated when you think that, O.K., we may have a handle on at what level benzene becomes a significant risk but what about benzene plus butadiene plus formaldehyde plus all these other chemicals? What is that cumulative risk? And we don't even know where to begin there. I mean, science doesn't really know where to begin there when you talk about cumulative risk, or what A + B + C + D + E chemical does to a human being living in a neighborhood by a chemical plant. You just don't know.

CC: I noticed in one of your articles, you talked about they had the monitoring vans and a lot of people refused to work in them because the pollutants are so high.

DC: Well, yes, because they had health effects. I mean, there was definite evidence, looking at some of the TCEQ's ... that is the Texas Commission on Environmental Quality which is a

State environmental agency in Texas ... looking at their own reports where you would see in the notes of the people doing the actual monitoring that they had health effects. They got nauseous. They got severe headaches. They vomited, in some cases. And in this one particular area, Tidal Road which is off the Ship Channel, they refused to sit in the monitoring van and do their work because they would just let it do it electronically, basically on autopilot if you will, because of the exposure concerns. And, you know, at the same time, it was so compelling to me as a reporter, in these same reports where people were actually experiencing health effects that they attributed to pollution, TCEQ either made no definitive conclusion about the risk to the people or to the neighborhood. They said, 'Oh, well, it is above our threshold. That means it may or may not cause health effects.' It really left people wondering, you know. I mean, this isn't rocket science. I mean, you look at Houston, Texas and you look at all the industry, and you look at a city with no zoning that has people living next to industry and obviously, it is a natural question - what, if anything, is the pollution from that industry doing to those people? And despite having a world renowned medical center, one of the best in the country ... M.D. Anderson, for Christ's sake, is here ... you know, you have a mega cancer center- we know very little in Houston, Texas about that link. Nobody has really ... it has kind of been the thing to really not touch in Houston, Texas, is to look at that link.

CC: Do you have an opinion on why?

DC: I think it goes back to the industrial is very influential on this town. I was told numerous times by people that work within the Medical Center that the people making the decisions on the grants work for this industry; people on medical boards are from the industry and have a vested interest in not studying that link. I mean, we have the National Urban Air Toxic Center here in Houston, Texas, they have done very few local studies looking into that link. They have done studies about, you know, does this monitor monitor as well as this monitor, you know, measure pollution as well as this monitor? They have done some basic science but nobody has really kind of grabbed it by the throat and really kind of wrestled it out. And what I was finding as a reporter

is that that had trickled down to the people that live there. They had a very simple question: What is in the air and is it going to harm me? And nobody was answering it. Nobody.

CC: And what about the people that you have met that are being treated for cancer?

DC: You know, that is a really hard thing. When I first proposed this project at the Houston Chronicle, I had an editor look at me and say, "So, what are you going to say? The air is polluted? Duh. That is not news. This is Houston, Texas." And I said, "Well, I'm probably going to say, yes, the air is polluted but I am going to quantify it." And you know, I think at the end of the day, I think we came out with this conclusion, that the air is more polluted than we all thought when it comes to air toxics because you weren't really being told what the issue was. And then, he said to me, "Well, can you prove that the air pollution is causing cancer?" And the answer to that is a resounding no. I mean, nobody can do that.

There are so many things that cause cancer. And we did look at that; we looked at, in the zip codes that we actually had put up monitors. We looked at the available cancer data in Texas. Now, there are some problems with the cancer industry in Texas and how good it is and how good the data is, so you have got to take this maybe with a little grain of salt. And we really did not find much correlation. But nobody has really done a block-by-block assessment of these health effects, and not always will they trigger cancer. Of course, I met people, you know, in these neighborhoods that thought they had cancer from the chemical company but, you know, unfortunately, in a lot of these neighborhoods, people smoked, people had bad diets. Indoor air quality is always worse than outdoor air quality. You know, a lot of people were using things that had carcinogens in them. You know, toilet bowl cleaners have carcinogens in them. So, you know, it is really hard to pin that down, to pin down that link.

CC: But you did see an increase in certain zip codes?

DC: We did see an increase in certain zip codes and there are some hot spots in Texas. And, you know, there are some places in Texas where there are higher levels. I mean, I think there was a study that just came out about the Shore Acres area which is near some industry. But, even so,

in terms of proving that- extremely difficult, you know. What chemical is it? Who is releasing that chemical? Well, if it is benzene, every car going by your house is releasing benzene. So, it is extremely difficult to prove.

CC: What about plant workers?

DC: That is another thing. I mean, plant workers . . . there are organizations in Texas working on plant workers and obviously, I met a few plant workers that had some serious issues and had some rare cancers that are attributed only to benzene and only to certain chemicals. Again, that is extremely hard to track. A lot of these workers are contract workers. They move around to different plants. So, who do you blame? Do you blame Exxon when you worked there in the 1960s versus Dow that you are working with in the 1990s? I have seen cases like that where the lawyers for the company say, "O.K., which one of us is it, because at all 3, you were exposed to benzene. And, by the way, you were exposed to benzene when you were pumping your gas."

CC: What about the butadiene?

DC: You know, butadiene, again, I mean, in terms of, again, that gets down to what chemical was it? And then you have got to start looking at what cancers butadiene causes. And that gets problematic because here in the United States, we don't inject butadiene into people and put them in a cubbyhole and see what it does to them over 50 years, you know, we use laboratory rats. And so then the companies come back and say, "Oh, well, it is rats. They are not like people so really can we use this?" We do use worker data. The EPA is setting these levels, these inhalation risk factors, is using all the data they have-- worker data, rat data. But you also have to look at some of those studies and validate those studies because sometimes the companies . . . I went through this in New York with PCBs, where GE did a big study about health and PCBs but you start looking at the study and they had like secretaries in the study. And obviously, a secretary is not the same thing as a guy inserting his arm into a vat of PCB oil. So, you have to be kind of careful. But it is so difficult. It is so difficult to look at cancer clusters. I don't think the tracking

is very good on the state level. A lot of these contract workers move around a lot, go to clinics that may or may not be submitting the data to the state, you know, those kinds of issues.

CC: And you found that we don't even adhere to the federal EPA standards?

DC: Well, EPA has no standards for taxies but they do have levels that they have developed kind of as a guideline. Now, some states adopt those levels as they are- that is how we are going. California does. New Jersey does. Texas doesn't so we do have ... the levels that we are using are, at times, greater, allow more pollution to be in the air than other places. So, not only is there this uneven playing field depending on where you live in Texas but there is also a national uneven playing field where virtually, the state of Texas is saying if you live in Texas, you are going to be exposed to more pollution near a refinery than if you live in New Jersey or California or Louisiana. We actually were worse than Louisiana for some chemicals. So, you know, there is this uneven playing field. And why is it important and why is it so significant is because these levels in Texas were developed for permitting purposes. So, they are used when a company comes in to get permission to pollute in this area of Texas. So, if company A comes in to the TCQE and they say, "Well, I want to build a new unit at my chemical plant, my refinery," and the TCQE says. "Oh, cool." But the question becomes, especially in an area already struggling with air pollution problems - what is that new unit going to do to our air? The company is asked to model and what that basically means is they will put into a computer program what their pollution is going to be from this unit. And then, the computer program spits out what those emissions will do to the surrounding neighborhood in terms of that concentration we have been talking about. And so. if that concentration that is spit out by that computer model, that is above Texas' level, they will say, "Maybe you should have a permit." But Texas still allows you to go twice above the level and grants a permit. So, they are basing these permits on these levels and basically, what we said is that these levels are bunk and not scientifically derived but then worse, on top of that, not only are they using lax levels, lax guidelines, but when they are looking at a permit and this company is modeling their emissions, the company is only assessing the impact ofthat one

part of their plant, not the whole plant, not the plant next door, not the cars going by. There is no accounting for area pollution where it already exists. It is kind of done in a vacuum, unit by unit, not cumulatively for all the industry in an area. And I think that is why we found issues in this community called Manchester because Manchester was literally surrounded on all sides by an industrial plants, all different companies. So, I think what Manchester signified and the state has yet to admit this to this day is that the permitting system is all messed up. I mean, if you are using the wrong numbers to evaluate the permits again and you are getting the permit based on those wrong numbers, well, isn't the permit wrong? And so, really they are getting a license to put this stuff in the air. And that is why these voluntary agreements happened because the state, after this big series came out, went back, inspected these chemical plants that the series had fingered for the pollution, and could not find anything in violation oftheir permits. So, the only conclusion to draw from that is that they were permitted to do it.

CC: How were they monitoring? By air, by vans only?

DC: Both. I mean, they have stationary monitors in and around some of these neighborhoods that don't move. Now, they take data ... it depends on the monitor. The majority of the monitors take a 24 hour sample. What I mean is they gather air for a straight 24 hours every 6th day. So obviously, you are missing some stuff there. And there was people that said that these companies are worse in the days - because they know the schedule - these companies are worse in the days they aren't being monitored. I did an analysis of that. I found that not to be true. You know, these companies, their vested interest is to produce as much as possible which they want to do consistently. So, other monitors take what is called real-time data which is basically like on the minute, where they will take data continuously, calculate a 15 minute average, spit that out. That goes straight to Austin. This is all done by computer and is pretty amazing. The companies in the Houston area, Houston regional monitoring network, they run their own monitoring network. It actually predates the state's monitoring network. They are very, very, very ... they keep that data very close to them. They don't like to share it. They say that if they share it, there will be no

vested interest in companies actually paying for the monitoring network. And then, when the TCEQ picks up problems on the stationary monitor, it would actually send out a mobile monitoring van and what that does is basically goes around the facility looking at wind direction in terms of where the emissions are going and the levels.

CC: Does it cover ground leaks?

DC: It would if they volatized. Yes, it would. And most of the stuff that is in these plants is very volatile so it is going to evaporate rather quickly. So, yes, that would cover ground leaks, that would cover waste water which, you know, I don't want to even get into that but during this series, a lot of the monitoring guys, professionals, talked about wastewater as being a big issue.

CC: What happens to the plants when they exceeds the standards?

DC: Nothing. They have nothing to go on. I mean, the state, looking at some of the documents that I got through asking for them at the state level, the state ... in Texas, when it comes to air toxics like with smog, you know when the smog standard is violated. It is very clear. The federal government says, if it is X micrograms per cubic meter over 8 hours, I think 0.85 now, and if the area violates that over 3 years, a 3 year average and you are out of compliance with the federal smog stander and you are labeled a nonattainment county, once that happens that triggers this big, huge process where the state is responsible for coming up with a plan to bring the levels down below the standard in X amount of years. And if they don't meet that deadline and the federal government gets real series and says, O.K., no more federal highway dollars, no more federal monies for certain projects, with Texas there is not that system because we don't have a federal standard for it. So, in Texas, we have these levels, right, and as I said, they are busted and they do an analysis every year of how many are busted and where they are. We are talking about serious health effects. They break it down to short-term ESL (effect screening levels). long-term ESLs. Short-term are like ... I forget what the time frame is- it might be different for each chemical ... but long-term is an annual average. And that is what is important when you are talking about cancer and other long-term health effects. But they are also supposed

to protect vegetation and every other thing. So, in Texas, you've got 2 things that can help out here: one is that in the Texas Clean Air Act, there is what is called a condition of air pollution. It is pretty vague how they define it. And so, in the past, the state has said to certain companies, 'Well, you have exceeded the ESL for this chemical. Our monitors recorded it and therefore, you are guilty of creating a condition of air pollution which is defined like something like may cause harm to the environment and human health, etc. and time and time again when they did this, it was completely unsuccessful because the company basically came back and said, "Whoa, they are guidelines. That is all they are. And just because we violated it does not mean we have created a condition of air pollution as is defined in the act. So now, Harris County has been somewhat successful for that. To make it very clear for the listeners, we have a couple of levels of government here at work. We have the City of Houston which has its own air quality control bureau, we had the City of Houston police department which has an environmental crimes division. We have Harris County Pollution Control which has county outside of city limits and then we have the state. So, all these guys are working. But Harris County ... Kathy Sisk who is the attorney in the Harris County Attorney's Office has successfully prosecuted on condition of air pollution. But, and I think Kathy will tell you this, she has been much more successful at nuisance law which is more property rights-based, which is, you know, very basic- no one has the right to infringe on the use and enjoyment of your personal property. And so, they had been using that pretty effectively but again, not based on these levels, based on odors, based on other streams of evidence.

CC: So, they are able to prosecute these people ...

DC: Civilly, yes.

CC: So, it is not a criminal ...

DC: No. You can talk to Roger Hasmin who is the Harris County DA's Environmental Crimes guy and he will tell you, you know, when it comes to air pollution, it is extremely difficult

to bring a case. It is not like, you know water pollution. It is not like a pipe. There is not the sediment running off the construction site. This is invisible stuff.

CC: When they do the nuisance laws and the odor and there is more than one plant surrounding the neighborhood, they go after both of them, I assume?

DC: Yes, or in some cases, the other way they could do it is that they can look at ... the TCEQ has a database that tracks upsets. These are like bursts of pollution that happen - sometimes an emergency, sometimes lightening will strike the plant and a unit will go down or electricity will go off and they have just, really it is a kind of burp, in a sense, of pollution. And those are recorded electronically now with the TCEQ. So sometimes when they get a complaint, when they basically do largely complaints, Harris County, they will go out to the neighborhood, see where the wind is going from, see what the odors are go back to the office and see at that time was there an active upset? And they also have access via the TCEQ to some real-time monitor to see pollution. So, they can do that and they will ask the companies .. .I mean, they will definitely ask the companies but after "In Harm's Way" came out, they actually started collecting data. So, before they go out, interview the people, talk about odors and now they are actually tackling a _____canister which is another type of monitor that takes a sample of air and they are actually testing that. So, they are getting into some real levels to even better their case, make our case a little stronger.

CC: How are they getting a sample of air?

DC: It is a _____canister. It is a vacuum operated monitor. It looks like a little beer keg, really. And you just basically tum it on and it takes air in. And then, they shut it off and then you send it to a lab and get the results. And they started that after "In Harm's Way came out. They didn't really have the resources or the equipment but another group, the Bucket Brigade which started citizen monitoring with buckets - especially big 50 gallon paint buckets had these monitors and donated them. So, that is how they got the monitors.

CC: I just talked to Bunnell Anderson and I understand that the Bucket Brigade is not working in Harris County any more?

DC: No. I don't know whether that is good or bad. I mean, I know Lunelle will tell you that . . . part of the issue with the Bucket Brigades and _____the technology that they were using was not really recognized for any regulatory agency. When they were using the buckets, you know, you could be very careful with this stuff and we were extremely careful is why we worked with the UT School of Public Health. You can't go and take a couple of minute sample with a bucket, then take that level that you've got in that couple of minutes and compare it to an annual average. It doesn't work that way. You have got to actually have data all year around, average it and convert that annual average. We did the same thing. We were guilty of the same thing but what we did . . . we took a 72-hour sample. So, we collected air for 72 hours. Well, it wasn't really collecting air because we had badges but we had a 72 hour sample, we sent it to the lab and then out pops X amount of butadiene, X amount of benzene. Now, that is kind of useless comparing it to a short-term standard because they are kind of meaningless anyway. I mean, when it comes to long-term health effects when we obviously found carcinogens. So, that was more of a concern to us. So, we compared it to an annual average but we had a backstop here and what the backstop was is we compared the data that we got to what the state got the year before. And time and time again, we fell right within that range. So, there was no _____. We were within that range. So, that is very important because the Bucket Brigade . . . the Buckets are known. There are issues with chemicals reacting to the plastic bag in the bucket. So really, at the end of the day, it may have gotten attention but you really have to have valid data to really move the discourse to another level.

CC: So, there was really no scientific data to back up their findings?

DC: Right.

CC: Have you found a difference since "In Harm's Way" has come out?

DC: Oh, a huge difference. I mean, people are talking about it. I mean, the mayor is talking about it. Industries are nervous about it. Do you know, people now are talking about air toxics when before, all they talked about was smog, you know, and smog is a very important issue but when I tried to sell this idea to my editors, I said, "I would rather breathe ground level ozone every day of my life than benzene. So, that is a risk I am willing to take. I would rather take the risk with smog than benzene.

CC: And you are familiar with the mayor's study on pollution?

DC: Yes, I covered that for the paper.

CC: And I understand they targeted the two you were talking about- benzene and butadiene.

DC: They were some of the problem chemicals, yes. But then, again, what I love about the mayor is task force reports and I actually was at the first meeting of the task force on a Saturday when the mayor came in and introduced the whole idea, is that, for instance, Manchester, yes, it is phenomenal news that butadiene which, you know, we only monitored for 31 chemicals but you know it was phenomenal news that butadiene has been reduced in that neighborhood by more than 50%. But the mayor's task force found that Manchester has problems with 12 chemicals.

CC: What else besides butadiene?

DC: They were the worst neighborhood in the whole study, was in Manchester, in terms of the number of compounds that were in their risk, range, risky range. And so, here we have one chemical going down. What about the others? And in some cases, the state doesn't monitor for some of those chemicals. So we really don't know what the levels are. They assume the levels looking at some modeling done by the EPA which is based on what is going into the air. So, you know, that is how complicated this issue is.

CC: So, let me understand this: There may be other carcinogens out there, toxics ...

DC: Eleven others that the mayor task force said in Manchester could pose health risks.

CC: But they are not even listed as a problem with the Texas state?

DC: Yes: a) because they don't monitor for it; and b) the only list of problems are those which exceed their own levels. And as we said, those guidelines are higher than other states and higher than a I in one million cancer risk level. So, it all depends. It goes back to a very basic question: It all depends, you know, at what level of risk was the mayor's task force assessing pollution? No, what level were they saying it was a potential health risk? Was it I in one million? I0,000. I in I000? It is all about what you compare the data to.

CC: And do you know what their final decision was on that?

DC: They had some debate on it but I believe it was I in I million.

CC: And what do you foresee being done in this area?

DC: I think the best we can do has been done because, you know, we can't ... permits last for I0 years, and once you have got a permit, you have got a permit. There is no crack and open the safe again, so to speak.

CC: So. they cannot change the _____

DC: They can't change the permits, and how permits work is they tell companies how much they are allowed to emit over certain time periods. But, you know, I think the intention is what is important and to keep that attention on them, whether it is the mayor or the county. The City of Houston is looking at data for the first time and reanalyzing it. I mean, to say, here is what our interpretation is ... and, you know, you are really getting into the situation which I think is pretty captivating between the state and the city who are looking at this, are kind of at odds with one another in terms of risk and risk is all about perception. Have you ever noticed that? It is like some people are more scared of being on an airplane but really, the odds are you are going to get into an accident in your car. The chances ofthat are much greater than an airplane. Yet, people are still scared of it because it is how they perceive it. The same thing goes true with this. The mayor is taking the hard line. He is saying, I only want X risk. That is where he perceives it.

Tape #2

CC: You were talking about the perception of the ...

DC: Right, and I think what is going on right now in Houston which I find very interesting is that you have the state saying one thing and the City saying another. And the City saying this risk isn't O.K., and the state saying, well, it is O.K. based on our new guidelines. Now, what also happened out of "In Harm's Way" is that the state, for the first time, is undergoing a peer review of its guidelines for air toxics and so, they are going to be actually redoing them. And what I think is going to happen is a lot of them are going to come down and be more stringent so that is another really good, I think, positive development out of this. But again, they can change the guidelines but those permits that are out there cannot be changed until they are up for renewal and they only last for 10 years.

CC: And we don't know if any are coming up for renewal any time soon?

DC: Correct.

CC: Did the companies seem to be pretty cooperative?

DC: I mean, I think the companies are being forced to cooperative, especially coming from the City. I mean, the major threatens Valero with a lawsuit over some air pollution violations the City detected. There have been instances where the City has referred ... the City used to be basically working for the state as the inspectors here locally and then they would refer what they found to the state for prosecution. And what was happening was the TCEQ was sitting on that and that was making the city mad. So, in this last go around, they didn't renew the contract between the two. So now, they are basically operating as separate entities and so there is some overlap there and what is interesting from my perspective as a reporter who is kind of watching this is there is different treatment based on who is the operative- whether it is the City or the state. In the case of Valero which is over in the Manchester neighborhood, the City was very hard on them and threatened a lawsuit to get them to act. And when that happened, Valero all of a sudden came to the table. Now, the state, they will negotiate. That is how the state does things in Texas. They don't do the hard line. And so, it is pretty interesting where there has been some

politics going on where I believe from my perception and what I have been able to report and to hunt down that what is basically happening is that companies operating in Houston are trying to go around the City and just work with the state because they know the state is going to be a little bit softer on them.

CC: Are they able to do that?

DC: In some cases, they are because the state is ... as it operates, the state is the enforcer of the state Clean Air Act. The city only can do what the city can do and you know, I know the mayor, so you can get ordinances and some other issues and he can have some local control but even he says that the bulk of pollution in Houston comes outside of its borders and it is true.

CC: Harris County versus the City of Houston?

DC: Yes.

CC: Manchester neighborhood, however, is in the ...

DC: Is in the City of Houston. Correct.

CC: So, regardless of government taking a hard stand until they actually ...

DC: Very limited on the local level. You are talking about federal and state laws and the interpretation and the enforcement of those. And the rules that make laws practical. You know, I think that the state is going to ... is a step in the right direction with amending these guidelines but they are still in the guidelines. And, you know, there were many people on City Council- Carol Alvarado is very vocal about this, about making very clear standards. If you go above the standard, you get fines or a violation. Blow it, you are O.K. And, you know, until we have that clear line, I think it is going to be very, very hard to pin anything on them.

CC: So basically, they can do pretty much whatever they want because they are not penalized?

DC: All they cannot do is exceed their permit limits. But what is happening is in "In Harm's Way," is that they are within their permit limits and we still have high levels in the neighborhood which tells you that those permit limits are probably too high.

CC: Absolutely. And if they exceed their permit levels, what are the consequences?

DC: Fines. Everything.

CC: So, there is some penalty?

DC: There is some penalty but it is not based on the concentration in the community, it is based on within their permits which is what they are allowed to put in the air. And so, somewhere between what they are allowed to put in the air and what is resulting in the neighborhood isn't really being controlled because all we really can control is what companies put into the air. So, either in Texas, they are putting too much into the air or something else is going on.

CC: And who makes the decisions on what allowable . . .

DC: The state- the Texas Commission on Environmental Quality. But they use those guidelines to help make a decision.

CC: But who changes the guidelines?

DC: TCEQ.

CC: So, it has nothing to do with the legislature?

DC: No, but if they were going to be standards, that would have to go through legislature. They are actually going to become an enforceable standard, not just a guideline. That would require a legislative act.

CC: Well, there are many different environmental organizations here: Mothers for Clean Air, the Bucket Brigade, Gas, just to name a few. Have they made any real difference?

DC: No, to be perfectly honest with you. They are all focused on different issues in the larger scheme of air quality, and you are also dealing with . . . their battle is a big one. It is really a delayed David and Goliath battle. We are talking about a lot of _____that are funded by the industry. You know, Dennis Bonnin, who is the chair of the environmental committee in the House - look at his sheet, I mean, and easily get it. I mean, donations from every chemical company in his jurisdiction has come up and said to me personally in interviews that his

constituents are the chemical companies and that is who he represents. And so, they have had a tough battle. But, you know, there is the smog issue, there is the toxic issue. Now, you will talk to maybe Jane Layping who will get on the soot bandwagon. There is climate change. There are so many issues. There are all different pollutants, right, with carbon dioxide, its climate change, its particulate matter, the soot, its knocks and taxies with smog and its taxies with taxies you know, they are all different. But because they are focusing on so many of them, the message is getting diluted. You know, I think you need to put your energy in . . . they would be more effective if they put their energy in one.

CC: So, they should band together and all focus on one area?

DC: They all have health effects but again . . . I am going to go back to risk because it is such an important concept . . . I _____reside in Houston, Texas and I look at these things before me and yes, there are a lot of problems. There is the soot, there is smog, there are taxies -which one is posing the greatest risks to the population now? That is the one you should go after. I mean, that seems the logical way to do it.

CC: Is that now what the mayor _____?

DC: Oh, he focused totally on air taxies and smog. Smog was on there. was on there. Soot was on there. But I think what came out of that is that looking at those compounds, the vast majority of them fall in the hazardous air pollutant category. There was ground level ozone on there. There was PM 10 microns or less and there was PM 2.5 microns. They are just different sizes of soot. And they also had, I think, diesel particulates there but the vast majority of the ones that he highlighted were air taxies.

CC: So basically, when all is said and done and all these studies go on, unless the population focuses on getting the law changed within the state of Texas . . .

DC: That is part of it. Yes, they have to decide what risks they are willing to accept and which ones are not, and the ones that they are willing to accept, they should wait on for a little bit and focus on the ones that they think are really an issue. And the problem there is that because of

this complicated area of risk, everybody has a different answer for that. And, you know, it is not only binding together of the environmental community, it is making people care about Manchester. Do you think anybody in River Oaks is thinking about people in Manchester, could even fathom what it is like to look up at a refinery out of your backyard as your kids play? I mean, there are just two very different worlds in one city. And I came across that. I went to ... when "In Harm's Way" came out, it was like what about my neighborhood and what about my neighborhood and what about my neighborhood and, you know, it seems to me that we become so insular- we only care about this small radius around us and, you know, to help those people is going to take us looking beyond ourselves because not everybody has an issue with butadiene. Everybody is inhaling butadiene at levels like that in Houston. We did that analysis. I mean, there are very specific problems in very specific neighborhoods but if they are only going to work by themselves to change this, it is such a small voice.

CC: Now, I assume a lot of those neighborhoods were built after the refineries were there.

DC: Well, no. Some of them, you know, like Baytown- all those houses in Baytown used to be refinery worker's houses where they used to bike to work and bike back. So, yes, not all of them were after. I mean, we have some very old refineries here that go back to the 1920s. mean. I am talking about some very old industrial plants.

CC: What about Manchester? Was that built after ...

DC: It would depend on the plant. Valero, the refinery was probably there before the neighborhood.

CC: Is it wise to let developers develop in those areas?

DC: Well, what is happening now is the opposite, where the chemical plants and the refineries are actually starting to buy out the neighborhood and create buffer zones. Now, there is some debate on why they are actually doing that. The primary reason, from what we have been able to gather through court records and some documents we got from lawyers is to reduce liability.

CC: Although nobody has been able to prove anything?

DC: Nobody has been able to prove why they are doing it. The companies say it is out of the goodness of their hearts and to beautify the neighborhoods and create a buffer- to create distance between themselves and the people.

CC: How do the people in the neighborhood feel about it?

DC: Mixed. Some people won't take the money. It depends on the company. I mean, some companies have a really good system and they price people. You know, obviously, living next to a refinery is not going to do a lot for your property value so some companies price as is right there in that square and some companies use subdivisions farther out that don't have the refinery factor to give people fair value. But some people, it is not enough money to start anew. It is not enough money to pay a mortgage on a new house so they are kind of stuck. But I think it is the best solution. Now, you know, a solution to this is to increase the distance. You know, now you have got to wonder with capacity creep and refineries increasing capacity to meet demand, are they going to just use this to expand in eventually and I focused on that "In Harm's Way." I met a family that moved 3 times and went farther and farther and farther back and they would move one block over and then the refinery would come in. Then, the refinery would buy them again and move them. And then, come more. So, that, again, goes to the permitting.

CC: And what about zoning? Could that be a zoning issue?

DC: Zoning could do it, too. Zoning could do it, too. And that is interesting. I think on the local level of the city, I have heard some discussions during City Council meetings when I attend them which is not as often as our City Council reporters but of ordinance talking about industrial facilities. And that would be a big thing for Houston- to get a local ordinance that talks about differences between industrial facilities and people.

CC: Was that raised in the mayor's study do you know?

DC: No, it wasn't. It was actually raised ... there is an issue going on right now with the cement manufacturers in Sunnyside, the neighborhood Sunnyside. What is the City Council member's name? Theta Edwards is very involved in this and they have apparently a lot of cement

manufacturers down there that is a particulate issue. Obviously a lot of dust. And during conversations about this on the City Council, it was raised that they needed an ordinance to make sure that there were certain distances being kept between neighborhoods. And they got into a whole debate about where do you measure from? For somebody who has covered environmental issues for 7 years, I know all the tricks of the trade. And then, you get into where do you measure from? Do I measure from the center of the facility or do you measure from the edge of the facility, the boundary? So, that is another whole debate. So, you know, all of these things ... but that would be big for Houston, I mean, to have something about an ordinance. That wouldn't help the people that are already next to refineries but it would help the next generation from having to live near new facilities. So, there are a lot of ways to go. There are a lot of different ways.

CC: Do you all foresee doing any major pieces like "In Harm's Way" again?

DC: Yes. Initially, I was going to do a part 2 this year and I do have some followups I want to do. I have gotten some very old data, industrial data I am not supposed to have in Manchester that goes back, way back and you can see actually how high the concentrations are. One of the things that the industry kept saying when this came out is: a) You can't compare it to that one year average (that is bunk); but b) you know, you didn't say how butadiene is going down. And I kept saying to them, "Well, if I say how butadiene is going down, I've got to say how bad it was, don't IT And they said, "O.K. Maybe it is not a good idea." So, I had some other things I wanted to look at but right now, I am working on a very big piece-I think bigger than a "Harm's Way." Maybe not as significant locally as "In Harm's Way" but significant for, I think, the whole country and world on oil. I am going to look at the various environmental and public health risks of our thirst, our insatiable thirst for oil.

CC: I look forward to reading it.

DC: Not only the costs here in Houston which are significant. I mean, you could argue ... I hear about this all the time, where here we are, we are the hub of this gigantic global wheel that is oil. Everything that is happening in the Ship Channel comes from oil. You know, it comes in to

the port, you have emissions from those barges which you can't control because they are foreign flagged-that is a whole another ball of wax ... they pull up, they unload crude from ... 33 different countries come into the Port of Houston each year, crude oil from 33 different countries that is mind-blowing to me, and they unload it into the refineries and the refineries refine it and about 40% of that goes to gasoline, diesel, kerosene, heating oil, jet fuel, and then the rest goes to chemical feed stocks and to the petrochemical plants to make our dashboards, to make lipstick ingredients, to make everything under the sun and that is so interesting to me because it is one thing to say, let's have ethanol and we are going to put ethanol in all of our cars and we are going to solve our addiction. Well, where are we getting our dashboard from? Where are you going to get the ... I don't know if they are glass or plastic, but all my glasses have plastic lenses. This is oil. This whole thing right here I am holding is made of oil except for the metal hinges.

CC: And the rubber tires.

DC: We depend on it for so many varied things and so we are going to be following some of those streams. But to go back to Houston, you know, we refine it here and we produce it here but we send it everywhere. So, if you think about it on the flip side, Houston is bearing the environmental burden for much of the rest of the country because people in Maine are pumping gas that is made in Houston but they have no refineries or air pollution, do they? So, you know, you talk to some people in Houston and they say, well, maybe we should just tax people that are pumping gas living in other states from us to help us clean up our air pollution problems.

CC: How did that go over?

DC: I don't think people in Maine would like that but I mean it is seriously true. You could also take it a step farther and say that we are at greater risk because we are feeding the country. We are supplying the country its needs when it comes to petroleum of all sorts. You know, we have more refineries than anybody else. We have more pipelines. I am working right now on a pipeline story which is one of the stories for the project. We have more pipelines in Texas than any other state in the country, and we have more pipelines in the U.S. than any other country in

the nation. I was just in Louisiana. There is one parish in Louisiana, Ouachita Parish, that has enough pipelines to go from Beaumont to El Paso. I mean, there are more pipelines underneath our ground in this country than there are railroads, you know, and people don't think about it. All ofthese things have risks. I met a guy in Louisiana that has 12 pipelines underneath his yard carrying everything from petroleum resin to ethylene to propylene to everything that we all depend on but it is not going through my yard. It is not going through your yard.

CC: Do we know?

DC: Actually, for both of us, we probably have a pipeline going through our yard! If you live in Houston, you probably have a few that you don't know about. I am just fascinated with that idea and this is just kind ofthe same kind of idea in terms ofwhere is the risk, who is being subjected to that risk for this economy, this oil economy? Who are the workers that work tanker ships as Exxon makes a gazillion dollars? What do they make?

CC: And these aren't all just company men anymore?

DC: No. You know, I was going to be on a tanker ship for 10 days and go grab some crude down in Mexico. I am going to still have access to the tanker, I am just not going to ride it because of security issues, but most of the guys on oil tankers aren't U.S. born. They are from Thailand. And then, it got into where Shell, who is the company I was working with on this said, "Do you speak all these languages because you may not be able to even communicate to them, so why be on a tanker for 10 days if you don't speak" ... I don't think any Asian languages. So, a lot of these people are from third world countries that are working these jobs on oil tankers at their own risks.

CC: But they can't communicate with each other then, right?

DC: Sometimes they can. Sometimes they know cursory English and know that language, I mean, the thing they need to know to work on an oil tanker but yes, it is very interesting ... I am hoping to start in Mexico because we import a lot of ... actually, Mexico is the number one country we import from here in Houston and they have some serious problems down there with

their infrastructure and oil spills and those kinds of things. Our demand is feeding that. That is connected to us. We may not want to think about it. It may be invisible to us but ... stuff that I am working on.

CC: Do you foresee any rightness for future generations in Houston when it comes to air pollution?

DC: Yes. I mean, I think we are making progress. I mean, that story I just wrote about the 50% reduction in butadiene and Manchester is a great example of that. I think people are working hard. I think it is a really difficult and complex problem. I think Mayor White talks about it the best, is that when it comes ... the city's future depends on its quality of life and more and more people are thinking about air quality and how it affects their health. And that is slowly factoring into their decisions of whether they want to live here for the long term, whether they want to move here. And the mayor talks about that symbiosis much more eloquently than I because that is his kind of quality, whole quality of life issue, but I think that it is true. To choose between a city with clean air and a city with dirty air, most people, subtracting all factors would choose a city with clean air. But there are a lot of other factors going on. I moved to Houston, Texas for a job. And, to people, that is their equation. I can come move down here, have a great job and buy a BMW and O.K., maybe that bad air isn't looking so bad anymore.

CC: Priorities.

DC: Exactly.

CC: And I assume it will take many years to clean up this problem.

DC: Oh, yes. I mean, you are talking 2012 for ozone. That is the deadline. And there is some question of if they are going to make it so yes, that is just one. That is just ground level ozone is 2012. Now, you know, the bad news is just very recently, Houston, on the books, doesn't have a problem with soot and what I mean by that is we do have soot but right now, it doesn't violate the federal health standard, or at least when the EPA came out with their list of all the counties that were out of attainment with the soot standard, we weren't on the list ___ because that would

be a whole another plan. But just recently, one monitor on the Ship Channel- diesel engines, remember, diesel engines are the major source of soot- one monitor on the Ship Channel, Clinton Drive monitor, has shown a trend that it may be in violation of the standard. And so, that is going to be something to watch because that is going to raise ... then, we are going to have a definitive third problem which is soot, I mean, ifwe violate that standard. So, that is something to watch.

CC: Dina. I want to thank you very, very much for agreeing to this interview.

DC: Oh, you are welcome. I hope it was helpful.