

Niagara Falls Gazette, dated 6/16/74
Titled "Goodrich Vinyl Chloride"

The reporter who wrote the story of a 57 year old (street?) woman of liver cancer associated with the breathing of vinyl chloride fumes evidently did not do his research thoroughly. The accusing finger is always pointed at Goodyear Tire and Rubber Company because it is the only remaining vinyl chloride user in the area. The deceased woman lived about eight blocks from the vinyl chloride plant and with the direction of the prevailing winds, any fumes from Goodyear would never reach that area, but there was a vinyl chloride plant to which an accusing finger could be pointed. The vinyl chloride plant disregarded by the government and medical research agencies -- and that was the BFGoodrich plant at 164 53rd Street. The first vinyl chloride plant in the US. It was in operation from 1940 until they suddenly closed without a decent explanation in 1971, which evidently was about the time of the reporting of the deaths of three workers in the BFGoodrich plant at Louisville, Kentucky, due to angiosarcoma of the liver. Between 53rd and 56th streets is a wide open field over which the vinyl chloride fumes from the former BFGoodrich plant could flow freely and the prevailing winds are such that continually blow toward the residential area of the deceased woman, and there were plenty of emissions, as any ex-BFGoodrich worker would attest to. It is odd that in view of all the VC publicity no governmental or research agency, if they were really interested in research, would check the former employees of BFGoodrich, who have had the longest exposure to VC of anyone in the country, many with thirty years of exposure. Workers were given yearly hand x-rays, lung tests, finger temperature tests, but the only report given to the workers was that most of them had arthritis. Perhaps BFGoodrich had already noticed the deteriorating effects of vinyl chloride and closed the plant to save themselves from bad publicity and possible legal action.

Signed by Joe Borel, ex-BFGoodrich employee, 419 West 25th Street, Niagara Falls, NY

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Transcription of green cassette tape labelled:

SIDE 2 - "6-12-74 to 6-13-74 ALGC long service employees"

This employee has 22 years service, he is a production employee. He started out with 6 months in the dryer building and then he worked as a helper. Then he worked for 6 months as a poly cleaner in building 451; after that he spent 4 years as a charge operator in building 451; 5 years as a charge operator in 461; 6 years as a first class operator in building 434 and currently is working in the tank farm for the past four years or so.

Stacy has been dizzy a number of times but has never passed out. He has pulled a number of people out from polys. He estimates that in the 9 or 10 years that he worked as a charge operator in 451 or 461 that 5 or 6 people passed out on his shift.

The procedure used in cleaning the poly is you first wash down the poly with a high pressure hose, then you leave the vacuum hose in the poly for 10-15 minutes. After that the helper would go into the poly and if he did not get a strong odor of vinyl, would clean the poly. He said that you could always smell some vinyl in the poly. It was not unusual at all, and there were very few times when you wouldn't smell a faint odor of vinyl.

In mining a hard charge, you always had a vinyl odor. If you struck a pocket of vinyl you would come out. He said they left a vacuum hose in the poly for a hard charge and they never did use air masks in mining a hard charge. He said one way you could tell vinyl was in the poly was by your lower extremities, which got cold.

Generally speaking, you did not smell vinyl in the poly building unless there was a leak. But it was not out of the ordinary to have a faint odor of vinyl in the poly building. He said it was more likely on the 3rd floor around the polys and the charge operator and the helpers just about spent all of their time on the third floor of the poly building. It was not as likely for the recovery operator to smell vinyl, nor the refrigeration operator.

The refrigeration operator operated the cold room and the charge operator very rarely went into the cold room. He doesn't remember any vinyl in the cold room, from his own experience, and he doesn't remember anyone keeping any food or drink in the cold room or in the catalyst ice box. He doesn't remember people going into the cold room to cool off or leaving the cold room door open to cool the area, and he does not know of anyone who sniffed vinyl on purpose. He said people joked about sniffing but he didn't think they were serious and he doesn't think that anyone he knows has ever done that.

In the past during hot weather, he saw men cleaning polys in the nude. I asked him about his experience with vinyl and he said

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vinyl does not have a disagreeable odor, rather a sweet odor. He said that some of the men that he's pulled out of the polys is that they did not smell vinyl -- that their feet just got cold and the next thing they knew is that they passed out.

He said that the only time he saw an explosimeter used was to prepare a vessel for a maintenance man to enter. He doesn't recall any readings being taken before solid charges were mined nor any general readings in the area.

He said in cleaning the polys that there was a checklist which the helper filled out. The operator then would check the vessel to make sure it was (?) and locked out -- and before the helper went in the operator would stick his head into the poly to see if he could smell VC.

Concerning the explosimeter he said that the safety man used the explosimeter.

He does not remember smelling vinyl outside of the poly building except in rare cases when bad leaks had occurred. He said that in the dryer building that the dryer building had a peculiar odor of its own that may have masked the vinyl -- he said he never smelled vinyl in the dryer building.

I asked him about the doors in the stairwells and he said that they were always kept open. He mentioned one man, Art Suntose, who used to make explosimeter readings, and said that Suntose was still in the plant.

This man is a production supervisor with 25 years of service. He started as a helper in building 434 and worked for a very short time in building 451 as a poly cleaner. He spent time in the tank farm and compounding and was made shift foreman in 1957; worked in the mill room after that then for 4 or 5 years worked as a shift foreman in building 451/461, then in the dryer building -- at the present time is day supervisor in S-tank.

During the time he spent at Geon he said there was always a certain odor of VC. Levels were high in the cold room. Two or three times a shift a foreman would walk through the cold room in the operating area to listen for leaks. The lead gaskets leaked around the manheads of the poly.

Sometimes washing farther down would cause vinyl to come out into the room. They used to put the vacuum hose in the poly as soon as the poly was open, if there was a high vinyl content in the poly. They would put the hose in high while they washed it down, and then put the hose down at the bottom of the poly.

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However, he thinks that the average poly cleaner cleaning the average poly, probably never used a vacuum hose. That they simply would wash the poly down then go inside and clean it out. Unless the VC level was noticeably uncommonly high, they wouldn't use a vacuum hose.

He said it was not too common for men to become dizzy or light-headed; it happened once in awhile. Just one time in his experience in Geon did he have a man pass out in the poly. He feels that the poly cleaners did have the highest exposure levels, probably.

The blow down operators could also have high exposure on occasion if he had problems with his operations. However, as far as his own experience with polys is concerned he does not remember smelling vinyl in the poly. He states, however, that he has gone into relatively few polys in his experience. He said the old paste and pull resins did not give much trouble with the VC left in the poly.

He said while he was supervisor in the Geon building it was common to find lunches and drinks in the cold room. Not too much lunches as drinks and sometimes ice cream... and that the plant, to his knowledge, never did make an effort to stop that practice, but he doesn't know of anyone who left food or drink in the catalyzer ice boxes because of the odor in the box.

He does not know of people going into the cold rooms to cool off, and he does not remember seeing the cold room doors left open to cool the area. He has heard rumors in the past that some people may have sniffed vinyl for the effect but has no evidence of that.

He said in the tank farm you could smell vinyl chloride when you were disconnecting the tank cars or if you had a specific leak you could smell it, but most of the time there was no vinyl odor. And when there was an odor they tried to find out what it was and what caused the odor. He said sometimes there would be an odor of VC on the roof of the poly building coming out through the vents but it wasn't too common to find that.

He said occasionally if the wind was blowing right if the vinyl was venting onto the roof it would be sucked into the control room and this was a matter of real concern to the men.

He did make explosimeter readings entries specifically and at one time the company had a program of using the explosion readings for leak detections -- this in 1954 - 1955. He said unless he was measuring a leak he did not find any background readings but that's really whether or not he, at the time, knew enough to recognize a background level, if there was one.

He said also that there was a program out at the ? to check the

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atmospheric VC levels in the (?) tanks but he doesn't know why the company instituted this program.

This is a maintenance man with 23 years of service. He has worked in all areas of the plant in the past, at present he is working straight day shift, and for the last 6 or 7 years has worked principally in Geon.

Through the years he could generally smell vinyl, usually pretty strong in the poly area. He has been silly from vinyl, one time 21-22 years ago working in a sump pit in the boiler house. He says that he did not smell vinyl prior to realizing that he was silly and he and his partner came out of the pit.

Another time, subsequently, they smelled vinyl in the same place and apparently the vinyl was getting in through the sewer.

About a year to a year and a half ago, a production operator told him about a man who was addicted to vinyl. This man, almost every shift, would have to be removed from an area because he was affected by VC. They finally reported the situation and it was corrected; he didn't know the man's name, but they talked with Bill McDonald and he said Ron Mather got involved too. This maintenance man said he knew of at least one other case similar to this in the past.

He knows of one maintenance man who passed out earlier from vinyl chloride, however, the man was a poly cleaner at the time, Fred Krieg. In building 464 they used to have high levels of VC caused, he thinks, by the operator, bleeding the strainers through the atmosphere. The vinyl would build up in the southwest corner and at times it got so strong that they could not stay in the area. They complained about this and the procedure has changed about two years ago and he has not smelled any vinyl there recently.

He says that almost every time he went on the third floor of the poly building in the past he did smell vinyl very strong. He has never smelled vinyl in a vessel in which he was working because of the vessel preparation.

He has never smelled too much vinyl in the cold room through the years and has never smelled vinyl in the dryer building, but that the dryer building had other odors that may or may not have matched the vinyl. He never smelled vinyl in the compounding or mail room areas.

In the tank farm he very rarely smelled vinyl he said it dissipated in the tank farm and was not noticeable. He said in the past people kept food and drink in the cold rooms and it was not uncommon to see it. I asked him about people leaving the cold room

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door open to cool the area and he said he has seen the door open but there was a rule that any time you went into the cold room you left the door open so he didn't think anything about seeing the door open.

This man is a production man with 23 years of service. The first 5 years he spent in the boiler house; he spent some time bagging and the balance of his time he spent in 451/461; 5 years as a helper in 451/461 -- poly cleaning, bagging... the second time he was a dryer operator. He said that if he hosed long enough, thinking back now I think he means if he used the vacuum hose long enough that he wouldn't find any vinyl in the tank.

The way he talked -- I got the impression -- I couldn't get him to clarify too well... but he didn't smell vinyl very often. He talked about feeling the vinyl -- he talked about getting cold between his legs... whenever he was in a poly and he got cold between his legs he would come out. If he got a little dizzy he would come out. He went out on the fire escape; this happened to him once in awhile. He knew two or three people who had passed out. One man was in the poly and one man was getting ready to go into the poly.

The times that he has gotten dizzy was when he was getting ready to go into the poly, hosing the poly down. In the poly, he says he has never been dizzy. That he has always felt the vinyl between his legs and then he would come out of the poly. The vinyl odor he says is not pleasant to him and he says he has to get away from it.

He said that he has kept the vacuum hose with him all the time, although in the past he has not always kept the hose in the bottom of the poly and so vinyl would lay in the bottom.

He said they had a lot of solid charges back then to dig out, especially with the 400 series polymer, and they had to use a charcoal mask with this series. He said that he could smell vinyl in and around the vent tanks; but he said he never has smelled vinyl in the dryer building but once in awhile he could smell vinyl on the third floor of the poly building if a leak occurred. He never smelled vinyl when he worked in the boiler house. He says that the foreman took explosion meter readings; he wasn't sure what kind of readings they got. Only sometimes then did get readings in the dens of the dryer building; not too often though.

He doesn't remember seeing any food stored in the catalyzer ice box. Although one time somebody was taking ice out of the box to use in drinks but was stopped by the foreman.

He said several times that he has had to go into the cold room and clean ice off the walls but that he doesn't remember smelling vinyl

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in the cold room, although he did smell ammonia once in awhile.

I talked with him about sniffing vinyl and he said that some employees may have sniffed vinyl. He thinks that a couple did and they left not too long after that -- that was about 15 years ago; he doesn't know the names of the boys.

He said he could smell vinyl on the second and first floor of the poly building only if a specific leak occurred or if the poly had been opened without being recovered, then you could smell it.

He said in the past year that they have had a lot of trouble with the recovery system -- that the lines had plugged and they couldn't get the vacuum to work properly and that it was not unusual to open polys that had not been recovered.

He says he has never smelled vinyl outside of the building and he said once in awhile he has smelled vinyl while he was closing the poly getting ready to go into it. That procedure was to open the poly first, put in the vacuum hose, leave it in there to air out -- as he called it -- they were supposed to leave it in there for 15-20 minutes, but sometimes they would be in a hurry and they would leave it in there only 5 or 10 minutes. Another point he made was that in the early made they didn't realize the importance of putting the vacuum hose all the way to the back of the poly -- they only put it in halfway -- if they left it in only 5 or 10 minutes and then went into the poly they would smell vinyl.

I asked him about going in without airing out the poly. He said well, that some people might have gone in to pick up one piece, if they could hold their breath, but most of the time they did air the polys out before; he knew he always aired it out; he said he has always been afraid of vinyl.

He mentioned that on the first floor that he sometimes smelled vinyl around the sealed water tanks -- a couple of times a month, maybe. Not a strong odor but enough so you could easily identify that it was vinyl you were smelling. He said they would even smell it in the control room, the fire escape or on the stairwell, and that the stairwell doors were usually left open most of the time.

This is a production man with 22 years of service. He worked in the dryer area as a bagger for about 9 months, a relief operator in 461 for 2 mos. and a charge operator in 451 for 2 and 1/2 years. He had an 18 month leave of absence for tuberculosis at one time and when he returned to work he worked in engineering storage and other times as light duty for about 2 years. Since then he has been a bagger in the dryer building; he's worked in estol as an operator, a storage operator in 461 for 4 and 1/2 years and for the last 5 years has been a recovery operator in 451.

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He cleaned polys about 2 months. Saw a man pass out, a charge operator, thought he was looking into a poly. Another time, just a couple of months later he saw the same man pass out again and recovered. Then the man was transferred out of the building.

This man says he can smell VC easy, and he gets away from it as soon as he can smell it before he gets a dose. He said it has a rather pleasant odor.

He mentioned that they used to get quite a bit of VC out of the knock out (?) tanks when they were draining them. He has never passed out and he has never seen anyone pass out other than the man I mentioned above.

One time he went into a big poly and got cold between his legs. He said when he gets too much vinyl he said his lips get numb and dry and he knows he better get out.

As charge operator on the third floor he said the biggest problem were leaks around the manhood. He said you could hear the hissing of the VC and it was common to have leaks on the third floor, it was not unusual to smell VC. Sometimes it would be a very strong odor; other times a very faint odor... but generally speaking, you could find it without any trouble.

He said on the second floor that he never did get much vinyl, that there would have to be a leak of some type to get the vinyl -- a specific leak.

The main problem was the third floor. He said he always liked ventilation and even when there wasn't any odor he would open the windows to get fresh air in.

In building 461 he said there was a problem with the recovery pump in the southeast part of the building. He said they used to get quite a bit of vinyl there. As a matter of fact at one time they would bleed the lines under the floor of the building; now they have large fans and they have a better procedure for handling the vinyl.

He said once in awhile you could smell the vinyl in the cold room but not too often. You never smelled vinyl in the dryer building but that building has a smell of its own that may have masked the vinyl.

He says he has never smelled vinyl in the mill room. People used to keep milk and soft drinks in the cold room but he's never seen any food. He has never seen any food in the catalyzer ice box.

He said he's never seen anyone cooling off in the cold room, he said it gets so cold he thinks it would be uncomfortable. He said people used to leave the door to the cold room open, and this was

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not so much for comfort as it was to defrost the ice in the cold room. He said at times they had air movers in there and heaters to do this job.

He doesn't know of anyone who had ever smelled vinyl for the effect of it. He has been dizzy at times, but he said when he gets back into fresh air he gets back to normal in just a minute or two. He has never seen anyone pass out in a poly.

I asked him about the explosimeter and he said that he knew it had been used but the foreman is the one who used it and he doesn't have any idea what they were looking for.

This is a production man with 23 years of experience; some time on the bagging machine, 6 months or so in 451 poly cleaning; he worked relief operator for a year and a half, and covered 451 in the tank farm and the dryer building. He was an operator in Beta Haileman ("I don't think that's the right pronunciation"). He worked in the dryer building as an operator and since that time has worked in building 437.

He said that while he worked in 451 poly cleaning he smelled VC every day. Sometime in the poly but not often, most of the time it would be on the third floor.

The worst job in the poly building as far as smelling vinyl as he estimates it would be the blow down operator. He said that the vinyl would back up along the fuel leg from the recovery leg into the pit on the first floor and then when the operator would go down to make valving changes he would get some strong doses of vinyl in the pit.

He almost passed out one time from the vinyl but was able to get out. He said he has been groggy many times but never in the polys; but mostly in these pits as a recovery operator. When he would go down into the pits to make valving changes his legs would be cold from the vinyl that was laying in the pits. Since that time they have put exhaust fans in to move the vinyl out of the pits.

He said he used to smell quite a bit of vinyl around the polys on the third floor. While washing down the polys the vinyl would come out of the manhead and fall out on the floor. Most of the time it would not be strong odors of vinyl and it would be very localized around the poly.

The refrigeration operator also got lots of vinyl in the cold room. He had to go into the cold room twice a shift and he would smell vinyl not every time he would go in but once in awhile he would smell vinyl when he would go into the cold room. This usually would be because of leaks around valve stems and packing.

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Sometimes when he was working in the polys he could feel vinyl coming up around his legs and he would have to get out and put the vacuum hose back in it and exhaust the poly longer.

He said some people would keep lunches and soft drinks in the cold room but he didn't see too much of it while he was working relief.

I asked him about vinyl sniffers and he said well, yes, he did know one man personally who had sniffed vinyl for the effect. This fellow was working here when our man came to work and left shortly after in the latter part of 1961. He said the one time the man went down into the poly without evacuating it and passed out and the foreman had to pull him out.

He said that he used to smell vinyl in the pump house from time to time in the tank farm. This generally was the result of an unusual equipment malfunction or an operator error that caused some breakdown and would be corrected if the person ever became aware of it; the gasket would be blown or something like that. He said usually this was a fairly light odor; he said he has never smelled vinyl in the dryer building.

He did smell vinyl when he disconnected the tank car while he was working in the tank farm.

I asked him about storing food or drinks in the catalytic ice box and he said he has never seen any food or drinks stored there.

He said that in the poly building they used to eat in the control room or in the stairwell or on the fire escape or at a desk on the third floor outside of the control room.

This man is a production man with 21 years of service. The last seven years he has worked in maintenance, however, he does have pretty extensive production experience in years past. He worked 2 years as a poly cleaner in 451, one year as a relief operator in the plasticizer building, 6 months as a bagger, 2 years as a charge operator in 451, and then 4 years as a blow down operator in 461, 4 years as an operator in estol and then for the last 7 years, in maintenance.

He said if he didn't air the poly long enough with the vacuum hose that you would smell VC. He said you would feel it on your feet first then smell it.

He was almost overcome twice. The first time, just coming out of a poly... when he was a poly helper -- the charger operator was replacing the rupture disk and as he broke the connection, vinyl that was trapped inside sprayed out and hit this man in the face and the charge operator helped him out and over into the fresh air.

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The second time was while he was in maintenance, he was working on a flame arrester and had to be helped out of the area.

He said that vinyl does not have an unpleasant odor; that he can recognize it readily. He has been slightly dizzy cleaning hard charges but has never felt any effects other than cold feet in normal poly cleaning.

The procedure that he followed in cleaning a poly was that after opening the poly to insert the vacuum hose and while the hose was in the poly to wash down the poly before going in. He said that if he went into the poly and smelled VC he would go back out and put the hose in for awhile longer before cleaning.

He never knew of anyone going into a poly before exhausting a poly with a vacuum hose. He said to the best of his recollection that the hose was left in the poly 20 minutes however, he does think that some were left in less time than that.

He said it was a fairly uncommon event for someone to become dizzy in the past, and he said he himself has never had to help anyone who has passed out. He never knew of anyone who sniffed vinyl. He said that in the past years they have had quite a few hard charges; not so much as while he was a poly cleaner but later on while he was an operator.

In building 461 on an overtime basis the company started experimenting with different recipes and had quite a few hard charges. He probably cleaned more hard charges during overtime as an operator than during the time he worked as a poly cleaner.

He said on the third floor of the poly building there was a faint odor of vinyl chloride most of the time. He said occasionally there would be a heavy odor but then they would look for and repair the leak.

He said it was hard to detect the odor in the cold room and he did not remember a lot of vinyl on the second floor of 461. On the first floor they open bin tanks gave a lot of vinyl when they were dropping charges. He said also the pit in 461 was a problem area. He said it seemed like there was always a vinyl odor around that pit.

He said he does not remember seeing food or drinks in the cold room in either 451 or 461 and he doesn't remember anyone keeping food or drinks in the catalyst ice boxes.

Outside of the poly buildings around the bin tank itself, you could always smell VC. He said he was never involved in explosimeter readings.

I asked him where they ate in the poly building and he said they

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ate in the stairwell and almost all the time the doors were left open.

This is a production man with 21 years of service; he spent 2 years as a helper in 451/452, one year as a second class relief operator in 451/452, one year as an operator in 452, one year as a weigh man in the mill room, nine years as a blow down operator in 461, and the last 7 years he has been in latex as a charging operator. I believe he was just made a foreman and either is a relief foreman or some type of supervisor now.

He has never smelled VC in the poly. Interesting thing as this fellow is that he has worked on the same shift for 20 years now; he has been on the C shift for 20 years. He said that in the past he was supposed to air the polys for 20 minutes before going in and sometimes he left the hose in longer than that.

He said that sometimes the chemicals gave him a headache pretty suddenly and he has made a conscious effort to avoid any exposure to any chemical. He said he has not cleaned out many hard charges; he even claims that he has not smelled too much vinyl in a hard charge. He thinks that some people may have sniffed vinyl on purpose.

As a blow down operator he did not smell much vinyl and if he did he said he would find out where it was coming from and he would fix it. On his shift he said men did not work in high concentrations of VC.

He said only one time did he really become dizzy or wobbly and he stayed behind to close the valve and he said by the time he came out his legs were wobbly. He said he has never had cold feet in a poly and his lips had never been numb.

Vinyl chloride does not have a pleasant odor to him; and he's been very careful to avoid it. He said that he has never smelled vinyl in the cold rooms or if he did it was only a whiff of vinyl.

I asked him about food being kept in the cold room and he said yes that they did do that in the past but that since then the company has passed a rule against that.

I asked him about eating habits and he said people used to eat in the third floor stairwell of the poly building.

This is a production man with 21 years of service; most of his service in building 451/461, primarily in 451. He did have a few years in ?.

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Years ago, they would put holes into the poly and fire it in, he said. He said working above the holes, sometimes the vinyl chloride was flushed out. He did this many times. He would get cold "around his feet and his balls" and then he knew he better come out for awhile.

He said several times he was dizzy but never passed out; he has pulled others out of polys. He did not know of anyone who sniffed vinyl on purpose because he said people were aware that if they sniffed vinyl and passed out then they might die in the concentration.

He used to mine solid charges -- many times -- he left the hose in the poly all the time he was in there. He has never gotten dizzy in the poly but the time he has gotten dizzy was when there was an emergency in the building when he had to stay around to take some kind of action.

He said on the third floor of the poly building he could smell vinyl but not strong; not enough to put you out. They may have had 5 or 6 polys open at one time and these polys would be venting VC into the atmosphere.

In years past if a man had 4 or 5 polys to clean during a shift, if they were all empty, he would just open them up at the first of the shift and just let them sit open while he went from one to the other washing them down. The illustration the man gave me was that if he had two vacuum hoses he would put one in each of two polys and he would go down into the first poly behind the hose and clean and then by the time he finished that one the second poly would be aired out well and he could go into it and work.

In the cold room he didn't notice much vinyl odor because it didn't readily vaporize down there. But right at the doorway the warmth of the building would cause much vinyl to vaporize and come out into the room.

Some people did keep soft drinks in the cold room but he didn't see any food kept in the cold room.

On the second floor it didn't have much vinyl normally but when there were troubles there would be a lot of it around. Weakened suction plates on the polys caused much of the vinyl on the 2nd floor.

On the first floor, in years past, we used to bleed vinyl pumps under the floor when they lost time (?), and that did cause high vinyl concentration in the building.

The sealed water tanks, as you drained in would always bleed vinyl into the room, but nobody paid too much attention to vinyl -- it didn't make much of a difference. He doesn't remember too much

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vinyl around the outside of the building unless you had serious trouble inside of the building.

He has never made any explosimeter readings; the safety department did all of that.

This man is a production employee with 21 years of service. The last 14 he has worked in the mill room. When he first came to work he spent 2 years as a bagger, first as a poly cleaner for a year, then spent two years as a relief operator working in 451 and also in the dryer building, 452.

He said he was never dizzy or light-headed and did not pass out during any of his time with the company and especially while he was working in 451. He said on several occasions in the poly he did have cold feet but he would come out when that occurred. He has smelled VC while he worked in the polys and also smelled VC while he was working on the baggers when he first came to work here.

He said at that time there were 3 men on the bagging line and he said they would spilt up the job so that each man spent 2-hour stretch on each job. There was only one job on the bagging line where they smelled the vinyl, and that was the man who filled the bags so it meant that two hours out of every six that they would be working that job.

He had a physical problem after he had been working with the company for about 7 years -- high blood pressure, kidney problems, loss of appetite, anemia, his hands were blanched... and he took off for quite some time.

He did have AOL, it was diagnosed by x-ray.

VCM has a sweet odor to him but it's not a pleasant odor. He said he doesn't like the smell of vinyl.

He said that during the time he was cleaning polys that sometimes they did not air the polys long enough and that they did get vinyl odor when they went down into it.

He said he spent a good deal of time cleaning hard charges in building 451. He said he could smell a little vinyl all the time on the third floor; that they never got away from a slight odor of vinyl.

He claims that he doesn't have an overly sensitive nose.

In the mill room on the first floor, where they dumped the resin -- from the bins, he said you could smell vinyl in and around the bins.

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He said also that he thought he could smell vinyl when he was handling some pigment in the mill room, specifically a black pigment. However, it has been some time since he did that and he doesn't know what the situation is now.

He said you could smell vinyl in the cold room quite often and he said he only remembers a few people keeping drinks in the cold rooms. He never did see any food or drinks in the catalyzer ice box on the third floor.

He said that he ate in the smoke shack either inside or outside.

During the time that he ran the 101 and 102 dryers he smelled some vinyl but not as much as poly cleaners did. He has not had anyone on his shift who passed out.

He remembers one man, a Bill Tiffy, who passed out quite often and was given time off, but he has since left the company.

Some people he worked with did become dizzy or light-headed while in the poly. He said that he tried to adjust the hose to the area where he was working.

He said he can't remember using an explosimeter in hard polys.

He mentioned also that his liver function test was abnormal in some areas and it has been repeated once and he is waiting for it to be repeated again.

This next man is a supervisor with 21 years of service -- he started in a lab as a lab operator for 28 months, and was helper in second class in building 451 for 8 years, then was charge operator in 451, worked in 452, blow down operator in 451, then back to 452, then became a foreman and has been a foreman for the last ten years in 451 and latex.

He worked with some vinyl as a lab operator and then as a poly cleaner in 451. He said they used to clean the poly in the length of time now that the air went out. They would put the hose in the poly and then follow it down, working down as the vinyl level lowered in the poly.

He said in cleaning hard charges there was an unwritten custom that you would spend ten minutes in the poly and then thirty minutes out. He said they would stay in until they became dizzy then went out on the fire escape and get some fresh air, then come back in.

He said he thinks that there were a lot more hard charges then than there are now. He said he was dizzy a number of times back then although he never has passed out. He said it affected him a little

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differently - he didn't really become dizzy until he got out and took his first breath of fresh air and then it would hit him.

He said, looking back, it seemed that if a man had drank some alcohol before coming to work that vinyl would have a stronger effect on him.

He said two or three a year would pass out.

Eight years ago, since he went on supervision, a man he was supervising passed out. He said he went in a poly and turned black. He said the man's name was Abraham Wits (?). He has since recovered and is still working, but there was a crust of PVC in the bottom and when he turned the PVC over there was some liquid vinyl in the reactor.

This man has been (the interviewee) involved in four cases where men have passed out. He said in the past he did not become excited when people became dizzy; it was just an expected part of the operation, just a thing that happened. Some got sick and vomited. In those days, they had a respirator that was hand-cranked but didn't use it much because it was a bother.

Of course they had the general information about bleeding vinyl on the floor -- he said you could smell vinyl on the third floor of the poly building all of the time, almost all of the time for the first ten years of operation. Based upon what he knows now, he estimates that the levels were considerably higher than 1000 parts per million a lot of times and that the second floor was about the same as the third floor but seemed to be affected by specific incidents.

He doesn't recall much vinyl in the cold rooms and said it was not uncommon to keep soft drinks in the cold rooms. He said he cannot recall any outstanding areas where VC odors were present other than the poly buildings in those days.

He mentioned two people in confidence who used to be very much affected by vinyl. One, Rick Lyne (he doesn't know the spelling). He said he passed out all of the time. Another one, Bob Sepas, he suspects as being a sniffer -- this man has 8-10 years of service.

This is a production man with 23 years of service; he was in the maintenance dept. for the first 11 years as a trainer, then went into production. He has been in 461 3 or 4 years and then went into latex and has been there. In 461 he smelled vinyl every hour he was there. Every time he charged a poly, when adding the water, the water would push the vinyl out of the poly and he would get a very strong odor. He said that he would stay and watch the water level until he got dizzy, then go out on the fire escape and get

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some fresh air then come back in.

This year he has been sick with an abnormal weight loss and does have an enlarged liver. He said that vinyl has a certain odor to him.

He has gotten dizzy a number of times but has never passed out. He said that one time they were just horsing around to see how much vinyl they could take and he barely made it outside the building, but he's never completely passed out.

He said only two or three times in latex has he gotten a strong odor of VC. While he was a painter, they painted the VC tank farm he got some vinyl but it was not a strong odor.

He said he did not smell much vinyl while he was a poly cleaner because he always took the vacuum hose into the poly with him. He said he got more vinyl while he was charging polys than while he was a poly cleaner.

He said he could not smell vinyl in building 461 unless he was charging. The big polys that he charged were -- (?) and did not require cleaning and so the vacuum hose was not used and that is why there was so much vinyl in them.

He said he has never worked with anyone who passed out while they worked there and his recollection is that only ten people have passed out since he has been with the company. All of these have been in polys and he said mostly they were new employees who did not know enough to get out of the poly when their "balls" got cold.

He said vinyl has a pleasant odor to him and he enjoys smelling it.

He mentioned an employee, Woodruff, who is more susceptible to VC than other people and had a lot of problems than the other employees who were not so susceptible. He mentioned an Al Fargo who was a big drinker and did not get as dizzy as the interviewee did although they were doing the same job.

He said on the first floor you could smell vinyl around the vent tanks but not too strong.

He said that when he had a bad headache he would breathe the vinyl until he got dizzy and then his headache would go away.

He did not smell vinyl in other areas in 461, the tank farm and the latex building. He said in 461 he ate his lunch while he charged the polys.

It was common practice to keep lunches in the cold room but not in the catalyzer ice box.

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This employee is a supervisor with 23 years of service and worked in building 451 as a poly cleaner for just a short time and then worked as a blow down operator for three years, then went into supervision. He worked for awhile in general chemicals as a shift foreman for about 18 months, then went back to building 451 for 5 or 6 years. Then he went back to general chemicals for 4 years and at the present time is in unit A.

As a poly cleaner he smelled VC quite often. He quoted the old saying that when VC get up to your "balls" and they get cold it's time to get out of the polys.

He estimates that only about 5% of the time is the odor in the poly significant. Of course, with solid charges, you got a fairly strong whiff of VC every time you broke a chunk loose. They kept the exhaust hose in the poly, however, when a big piece had to be taken out of the poly, they had to pull the hose out first in order to remove the chunk and then the vinyl chloride got pretty strong in there.

He was never dizzy as a poly cleaner. Occasionally, the third floor around the polys would have a VC odor -- not a constant thing but just once in awhile and it could get pretty strong.

The cold room generally had a vinyl odor also.

On the second floor he smelled vinyl on an incident basis -- if a poly cleaner had left an inspection plate untightened or something of that nature then he would get a vinyl odor on the second floor. He said, however, that you could go for quite a time with no odor.

On the first floor you found vinyl around the vinyl chargers over the blow down pit. More often than on the other floors you could find it in the blow down pit.

On the paste polys the blow down operator would clean the vinyl strainers and always got some VC then.

Outside the building you could get some vinyl odor only with the exhaust vents ... and with that type of opening it would not be too strong.

In the tank farm when gauging the vinyl tanks using a slip stick, you would get vinyl odor or disconnecting a tank car after unloading you would get vinyl odor but just for a few minutes and since it was out in the open the vinyl odor wouldn't be too strong.

In the pump house you almost always got a strong vinyl odor. He supervised the pump house for awhile and went into it several times each shift and always smelled vinyl in there.

The only time he has passed out was one time he was trying to stop

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vinyl from escaping through the manhead where (?) operation had charged an open poly and liquid vinyl was coming out. He had a headache as a result of this episode.

As a foreman, on two occasions he had men pass out. Both of them were in polys. On a third occasion, a man was hosing down a poly and passed out. He was laying over the poly for about 15 minutes before somebody discovered and removed him from the area.

He said it is not correct to say that everyone has gotten dizzy from vinyl at one time or another; he said it was not an uncommon thing but at the same time, he doesn't think it happened to everybody.

Although he made explosimeter readings for vessel entry, he did not make any readings in a general area and does not recall any general readings being made.

Also, he does not recall any of his men going into a poly with their shirts off, much less nude.

I asked him about vinyl sniffing and he said the only occasion he knew of was one college boy he came upon who was sniffing vinyl.

He also said it seemed to him that the same amount of vinyl would have a different effect on the same person on two different occasions depending on one factor or another. He doesn't know why.

This is a production man with 22 years of service. He spent 5 years in the dryer building bagging, and has been in the mill room most of the time since then on the weigh shop.

In the dryer, he sometimes smelled vinyl chloride when bagging out of bins. He doesn't remember what type of polymer this occurred with. Most of the time he could not smell any vinyl. He said it was unusual to smell VC.

He could not smell any vinyl carried by the breeze outside the poly buildings or other areas, and he could not smell vinyl outside of the dryer building. And there was never enough vinyl in the dryer buildings to overcome anyone. If they went into the bins they usually wore respirators because of the dust in the bins. There was a strong odor in the bins sometimes, but not enough to make you dizzy. And he went into the bins on rare occasions only.

He went into the spray dryers a time or two but never smelled any vinyl in the spray dryers. Occasionally, in the mill room, when wearing (?) resin he would cut a 50 lb. bag and smell a faint odor of vinyl but not often.

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On an overtime basis he sometimes worked on the solid chargers and of course, could smell vinyl while cleaning those. He feels he has had very little exposure to VC over the 20+ years that he has been in the plant.

This man is a production employee with 23 years of service. After production; he works in maintenance now, but most of the time has been in production. He started in building 451 as a poly cleaner and then worked in carboset for 15 years, then transferred to maintenance and has spent the last 8 years in maintenance.

During the time that he worked in carboset when the building was shut down for periods of time he did work in other areas of the plant, for example, he spent a year in building 461 at one time.

He said that in Geon he used to get vinyl several times a day. He had to evacuate the building several times because of the fumes; he never did get dizzy, but his ankles got cold several times and when that happened he would get out of the poly right away.

He knew of several people who have passed out in the polys -- three or four. To him, VC had a sweet odor, and it's not an unpleasant odor.

During the time he spent in building 461 he did not smell much vinyl.

Side 1 (seemingly a continuation of Side 2, above)

(green cassette tape labelled "1974 - 6/10 - 6/11 Louisville long service employees - 815 mis. 6/13 ALGC long service employees")

He said that during the time he was cleaning the polys that he generally didn't smell vinyl, unless there was a leak, then as soon as he smelled vinyl he came out. He got dizzy a few times but he has never passed out during the time that he has worked in the plant. He said that there was vinyl in the ploy area most of the time but after a while he got so used to the smell to the faint odors of vinyl that he didn't pay any attention to it. He really doesn't know how to say how much vinyl there was. He never worked in the cold room so he doesn't have any idea about levels in the cold room, but he said that exposure meter readings were taken in the plants where he worked a number of times, but that all he knew was that the area either passed inspection or it didn't pass inspection. He never knew what kind of readings they picked up. He said it wasn't too unusual for people to put lunches in the peroxide boxes -- he said he doesn't know about the cold rooms, but he said in years past he used to see lunches and drinks in the

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peroxide boxes, quite often, although he never did do that.

I asked him about vinyl chloride in the spray dryer and he said he never smelled VC in the spray dryer building during the time that he worked there. This is a production man with 27 years experience, most of it -- 19 years as a paste charging operator and he states that most of the time, in years past, he could smell VC around the polys. That until 6 or 8 years ago, when new polys were put in, the gaskets leaked quite a bit around the old polys. He said there was more vinyl on the 3rd floor than on the other 2 floors. He has been dizzy or lightheaded several times but he has never passed out. He has pulled a number of people out of polys who did pass out.

He said in the years past they used to wash polys without airing them first, and because of that, got a lot of VC on the floor. But that when he was working in a poly, he would come out whenever he smelled VC. Years ago he saw vinyl chloride dripping off the gate valves on the second floor, but not so much now, although he did see that same thing happen just 2 or 3 weeks ago after maintenance had to replace the valves and didn't get the new valve in tight. He said that through the years it has been much worse than it is now. He said he has seen people put soft drinks in the peroxide boxes but he is not aware of people putting their lunches in there. He has worked in the code room only a couple times and that was over 20 years ago and he doesn't really have any knowledge of VC in levels in the cold room.

He said that the guards would take exposure level readings whenever the maintenance men were going to work or whenever someone was going to go into a set up policy but he had no idea what the readings were. It was either go or no go.

This man has 31 years of service as a product operator. He was a helper in building one for 6 months, and has worked in bldg. 1 and 15, however, most of his experience has been as a relief operator in buildings 111, 121, 112, 129, 127, 128, 139 and 140.

He said thirty years ago, they exhausted the polys right in the poly building. If the vapors had more than 15% oxygen, they vented it either out into the roof or out into the building rather than putting it back into recovery. Most people who from vinyl worked in polys, and this man said that he believes that this occurred as many as 1,000 times since the plant opened. He has never passed out but has been dizzy or lightheaded a number of times. He suspects that in past some people may have sniffed VC and possibly have become addicted to it. He wouldn't say it outright but I think he feels that some of our angio victims may have been VC sniffers.

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He expressed concern about the difference between VC made from EDC and the vinyl made by reaction between hydrochloric acid and acetylene. He thinks that people who worked in EDC production have health problems that other people didn't have and mentioned ... and kidney problems.

Another concern he has is that during the first ten years of the plant's existence new employees spent only 6 mos. to a year cleaning polys because of the growth of the plant. However, beginning about 8-10 years after the plant started, when growth slowed somewhat, people began spending years in the polys and as a result, he thinks, were exposed more to vinyl chloride. Carrying his theory to its logical conclusion, he would say that those people with 20 years of service now would be more apt to have liver problems than people with 30 years of service who spend less time in the polys.

He said in the early days everyone kept food in the cold rooms until one time someone drank some methyl alcohol by mistake, thinking it was soda pop, and that right after that the company cracked down on letting people storing food in the cold rooms. That is just a little plant gossip.

He feels that the cold room had the lowest concentrations of any VC operating areas. One, because they are cold and the vinyl wouldn't be so apt to vaporize and two, because the vents from the cold rooms vented back into the other buildings. Although he has seen exposure reading meters used in the past, he doesn't have any information concerning readings on exposure meters.

This man is a production man with 25 years of service, 20 years of which he spent as a recovery operator in building 111. He never passed out but he did get dizzy several times. He thinks that the effect of vinyl now is worse than it was several years ago.

He said that when you were working in a poly the first evidence that there was vinyl in the poly was when your feet got cold. He said it was alright to work in until the cold got up to your testicles and then it was time to get out of the poly. One time he was telling me he got a big blast of gas when a line broke and he was stuck holding the VC line in his hand. He said as a recovery operator, it was common to see liquid VC dripping from leaky gate valves over the years.

I asked him about keeping food in the cold room, and he said "well, sure" -- that over the years, 15 years ago, for example, it was very common to keep lunches in the cold rooms.

I asked him about exposure meter readings and he said he knew they were being used but had no knowledge of their readings.

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This is a production man with 24 years of service, he worked as a helper for a couple years in building 111 for a year in 115, worked there as a spray dryer operator in building 129 for 2 years. Most of his experience has been in building one as a charging operator for 11 years and most recently as a dryer operator for 2 years.

He does not remember smelling VC in building 129, when he worked as a spray dryer operator. He got dizzy one time in building 121, and seemed to remember that well. This was in the early days, but that was the only time he has ever been dizzy or lightheaded from vinyl. Since he remembers it so well that very well may be the case.

He said in the early days, they only polished for 5 minutes and didn't leave the vacuum hose in the polys while they were cleaning. Years ago they vented the poly into the building, not uncommon to smell VC as a charging operator -- smelled it most of the time.

He said that it was common to put lunches in the cold room during the time he worked in building 15. He said they would often open the door to the cold room to cool off and sometimes would leave the door open for shifts at a time.

In building 15 they used to drain vinylidene chloride into the sewers when they were changing types of PVCs and he said it was common to see leaky lines carrying vinylidene chloride wrapped with rags and they used to smell vinylidene chloride very strongly at times in building 15. He said you could smell vinyl outside the building if the wind was right outside the building 15 especially.

In the old days, it used to have quite a few set up polys to clean and he said they could smell a lot of vinyl when they cleaned the set up polys. In the early years, his recollection is that they did not take the hose in with them into a set up poly -- when the vinyl smell got too bad they would come out and put the hose back in to evacuate the poly for a while longer.

He is aware that the guards used to make explosimeter readings but doesn't have any idea what kind of readings the guards got. He said he does not remember smelling VC in the warehouse or the compounding areas.

This man is from the safety dept. He has a total of 26 years of service with the company. He has been in safety since 1964, prior to that he worked in EDC in the mail room, years ago.

He said that in years past on rare occasions he could smell VC in the mail room if the wind was right and if there was a serious leak.

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Records of exposure meter readings are available in the safety dept. however, he is not sure how far back they go since they have cleaned out the files from time to time.

In building 121 sometime around 1967-68, however, he made a general reading on the first floor and he got a reading from around 100% down to 60 or 70%... It is his opinion that the exposure reading would measure VC or hydrocarbons for that matter below the whole factory threshold. Hot work permits required a zero reading on the meter.

He said it was a common thing to see valves leaking VC and when this happened the ... would be turned on and the leak would be repaired in time but may or may not have had a high priority.

He is not able to give an average reading - he said exposure readings in polys could go for weeks from no reading to low readings and then have a period of time where you would get a very high reading.

He said since 1964 if the safety department found food in cold rooms they would throw it away. He said that during the monthly inspection that safety made they would find food in some cold rooms but not all of them. He said they never found food in the peroxide boxes -- and he doubts whether or not men kept food there often because there was a strong odor in the boxes and he feels it would have tainted the food.

He said since 1964 that quite often men have become dizzy -- he said their feet would get cold and this was not an uncommon thing. He said the regulations called for the vacuum hose to be in the poly down at the bottom but often the hose would get in the way of the poly cleaners and they would push it up, out of the way.

He said that rumors had gone around from time to time through the years that sniffing some chemicals used including vinylidene chloride were going around and he doesn't have any idea whether or not anyone actually believed these rumors and actually sniffed these chemicals but it is something that could have happened.

When I talked with him about the odor of vinylidene chloride and VC he says that based upon his experience in the plants he doubts whether he can distinguish between vinylidene chloride, butadiene, VC and acetylene with any real degree of accuracy and he gave us an example. Two pipelines carry VC and acetylene side by side. He said one of the pipes developed a leak -- after they had excavated a line he said the men working on it he leak couldn't tell which it was that was leaking -- they had to trace the leak down.

He said he would get a copy of this building 121 survey that I mentioned. He suggested also that we talk to Boley, the man who was the senior safety man in the plant. He retired last Nov., he

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said Boley has long experience and was very astute and he thinks it would be a good thing for us to discuss this subject with him as well.

This man is a maintenance man with 24 years of service. He has been on day shift for all except one year of his service with the company. He has worked throughout the plant and has been dizzy about a dozen times but has never passed out. He does not know of any maintenance men who have passed out although a number of course he knows have been made dizzy in the past. It seems that most of the time he has been dizzy he was working in the EDC area.

He says he can easily distinguish the odor of vinyl chloride because of its rather pleasant, sweet smell. Through the years, he has smelled more vinyl chloride than now.

He said in the past if they saw a little spew of VCM they let it spew, but now they take steps to correct it right away. In the past he said he could always smell vinyl in the polys. He has not been in the polys for 8-10 years, so he doesn't have any indication for that period of time. He has smelled vinyl while he was working in the polys doing maintenance jobs.

In the cold room he says it was pretty rare to smell vinyl unless they had a bad leak. He mentioned the example of a flexible hose leak -- then they could smell it. He said that putting headers in the poly building helped to cut down on the vinyl odor as best as it could -- to the best of his recollection about 5 or 6 years ago.

In working in the cold room it was common thing to see lunches, watermelons and milk being stored. He has heard rumors to the effect that some people sniffed vinyl chloride for the effect but doesn't know of any specific instances.

He said only rarely could they smell vinyl away from the poly buildings. Sometimes, on rare occasions, if they were walking past the building and there was a bad leak or a blend tank being cleaned or a blow down tank ... they might smell it but not often and he said he never smelled vinyl in the warehouses or compounding.

He is not aware of any exposure meter readings. Only that if the area was clear based on the explosimeter readings, they were given the go-ahead.

This man has been in production for thirty years. He started in the caustic building and worked there a couple of years and went to Heidlyn and worked there about five years. He went to the tank farm and stayed there for three years, spent a year in synthesis,

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and a year as a spray guard operator, but for the balance of his time has worked in the tank farm.

He said that while they were making vinyl chloride in the plant, that the tank farm had little contact with VC except that they had to bleed the VC holder tank once per shift. He said it was fairly common for a person's feet to get cold as they were bleeding the tank. It used to gage vinylidene chloride by using a rod and venting it -- they did this once a day for years and each time they would vent the vinylidene chloride there would be some odor in the area.

On the tank farm also it was common practice when a vinyl pump lost its prime to just bleed the tank until a liquid came out which would take 15 or 20 minutes. He said you could always find vinyl leaks in the tank farm; it was no unusual to smell vinyl, it was a rather common thing.

He did also say that they had taken exposure meter readings once per month throughout the tank farm and turned the results in to the foreman. I questioned him about the levels and he said that unless you were getting a reading ... a leak, in which case you would get maybe 100%, but that you would generally get a zero reading on the exposure meter.

He said he could readily detect the odor of VC, that it was a sweetish odor and he smelled it enough to know the odor well.

This is a safety man with 29 years of service -- 11 years in the laboratory and 18 years in safety. He agrees that the average worker cannot distinguish from vinyl chloride, vinylidene chloride, butadiene, acetylene, etc. However, he said that people who have worked with VC should be able to distinguish the odor.

I talked with him about the explosimeter and he -- based on his experience -- feels that you can get exposure readings with no smell -- if vinyl is present. He said you can get two things -- you can get readings as high as 5 or 10% on the explosimeter with no smell of VC.

He said further that he has had people overcome in the polys who did not smell VC. The first indication they had of trouble was when their feet began to get cold and then it was too late -- they would pass out. He said on the average about once every six months or so in the past a man has passed out. By and large this has always occurred in a poly.

He has been dizzy from VC and feels that anyone who has worked with VC for any length of time has gotten dizzy or light-headed at least one time or another.

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In past years, odor of VC has been common in the poly areas and they could smell it at least just about every time they made a trip to the poly.

In the month of safety inspections they had always found food in the cold room in the peroxide boxes. I asked him about VC odors in the cold room and he said well in building 15 he feels that the levels have always been high but in building 121 and 111 it has not been much of a problem.

In the building 111 receivers on the 2nd floor, people have gone in there to cool off over the years. He has never smelled VC in the warehouses but he could smell it in the mail room if there was a bad leak in building 1 or building 15.

I asked him about explosion meter readings over the past years and he told me that he would check and see if he would find anything, and he is going to provide one of the old explosimeter readings which I will take back to Cleveland.

This is a production man with 25 years of service -- he has worked all over the plant. Probably most of it is all over the two PVC plants. Probably the most time he spent in one place was four years as a spray operator in building 1 and 15. At the present time he is a helper in building 112. He said that at the jobs he has worked at you would most often smell vinyl cleaning the polys, but then he said his feet would freeze before he could smell the vinyl and then he would get out.

He has been dizzy but only once or twice. He has never passed out but he knows a number of people who have passed out. He said probably not an average of one person per year but a good number.

He said you can get a very strong odor of vinyl in a setup poly.

Some people, it appears to him, are more easily affected by vinyls and other... The ... mixers in 121 operators get quite a bit of vinyl. In fact he said that next to the poly cleaners that these fellows probably get the most vinyl. The rotor (?) meters and latex get quite a bit of vinyl. Sometimes the second floor the ... operator gets quite a bit of vinyl when they are ... a poly overhead.

He has never smelled vinyl in a dryer building -- doesn't remember smelling vinyl around the spray dryers, and never smelled vinyl in the warehouse except in building 1 he said he could smell vinyl there.

Working around the cold rooms he said they used to sample (?) in the cold rooms they would bleed a line until liquid came out and it

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would go on the floor and there was quite a bit of a vinyl odor when that happened. However, in the small cold rooms people would store food - watermelons, milk... He said in the small cold rooms one could smell VC but not strong. In fact, he used to work in the cold rooms for a half a day at a time without any ill effects.

He is aware that people made explosion meter readings -- the guards but he doesn't have any idea what kind of levels they came up with.

I asked him about people going into the cold rooms and cooling off and he says well they might have but he wasn't aware of it and he doesn't know of anyone sniffing vinyl for the effect of it.

This man is a production supervisor with 32 years of service. The first 2 and a half years he was here he worked in sale (?) room, and right after that was made supervisor, and has been a supervisor in plant 2 for almost 30 years.

Thirty years ago, rather than shutdown a plant, if they overproduced VC they would dump the excess on the ground and it would evaporate. They used to dump this, he said, outside the foreman's office in building 1. What he has done in the past to detect when he was getting too much vinyl was to bite his lip, and when his lips began to grow numb, then he would know that he better get out -- that he was getting too much.

He said that the cold rooms historically were leaky with VC and had high levels of VC in them. He said the supervisors spent as much time in the cold room itself as the operator did. The supervisor would go into the cold room to do valve adjustments and locate malfunctions and monthly had to go in with the explosion meter to detect leaks.

He said that some people may have sniffed VC in the past but that he doesn't know of any specific cases. People did used to open the cold room door in hot weather in order to cool the surrounding area. He said of course people did keep food in the cold rooms -- it wasn't uncommon.

In thirty years he says he has only been involved in two cases where men passed out from exposure. Both of these involved vinylidene chloride rather than VC. One man, his name is Ed Taylor, he is still here, the other man he doesn't remember.

This man feels that since the plant opened, only 15 or so people have actually passed out from overexposure, but many people have gotten dizzy. He said in years past he has gotten dizzy -- "drunk" he calls it a number of times. He agrees that anyone who has worked with VC for any period of time in this plant has gotten dizzy one or more times in the past.

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He said you would have to have a strong odor of VC before you were affected, and he said that once you got into the fresh air it would be just a few minutes until it would be alright.

He did take readings with the explosimeters and he said that normally in the cold rooms the readings would be in the neighborhood of 10-15%. Normally, in the poly building itself the reading would be 0 unless there was a major leak in the area. He said you could not smell VC if the reading read 0 on the meter.

He said it was not uncommon to smell vinyl in the common area and people generally didn't think anything of it if there was a faint odor -- it was only when the odor became strong when people became concerned enough to find out where it was coming from.

The vinyl was most noticeable on the second floor of the poly building. He said generally the poly cleaners have had more vinyl exposure than the operators. He said normally the cleaners would spend about four hours a day in the polys.

He said in the early 40s the recovery operators used to wash the polys and got considerable exposure from that.

He said he does not remember smelling vinyl in the warehouse or in the mail rooms in the years past.

This man is a production supervisor with 27 years of service -- 22 plus years in building 121. He has been a supervisor since 1964. Over the years he states that the poly cleaner's job has changed considerably in terms of the recipes that are used now, the changes/ advances in equipment and HRC (?) to where the poly cleaners today has a much easier job with less exposure to VC by an order of magnitude from what he once had.

He said in building 111, the 1100 gallon polys the cleaners would spend approx. 20 minutes in each PVC poly during the early to mid 1950s. Of course now, it is much less than that because they don't go into every poly. However, he does not remember smelling VC monomer unless a specific leak occurred in which case they would locate the leak and correct it.

In his own experience as a poly cleaner, he did not get significant amounts of VC from going into a poly. He again quoted that old saying: "if your testicles get cold, get out of the poly." In washing down the poly, he sometimes got a faint odor of VC monomer.

Some people (he said) got dizzy or light-headed when washing down the poly. He has never gotten dizzy or light-headed. One time he got "woozy" -- this occurred a couple of years ago when he was pulling a man out of an area ... (where he passed out ?) ... the

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man was R.P. Gettlefinger.

I questioned him about the explosimeter readings. He said that in the cold rooms, in building 121 that the levels would generally run between 12 and 18% -- the general reading in the building itself would ordinarily be zero. He said he could not get a reading in any poly in building 121 after it had been exhausted at least 10 minutes. The setup poly, however, was a different matter and they could get readings in the setup poly. Now if they used both an exhaust hose and an air hose, which they normally did, they would not get an explosion meter reading in the setup poly.

In recent years, in building 121, men cleaning setup polys wore airline masks. His recollection is that there was not too much vinyl in the cold room in building 121. He said there was not as likely a leak in the cold room as in other places because it's a low pressure system and when a leak does occur the concentrations tend to be heavier because there is no ventilation. He said most leaks occur around vos (?) tents and packing plants.

He stated that once in awhile he used to see soft drinks in the cold room but that he doesn't recall ever seeing any food.

I asked him about people sniffing vinyl purposely and he said that no, he had no knowledge of that and no suspicions concerning any particular individuals.

This is a continuation of my notes from Avon Lake from Side 2.
("I am probably repeating some of this now...")

During the time he worked before 461 he did not smell much vinyl unless the recovery system became overloaded, which happened occasionally and blew out through the seal. He did not smell much around the polys. He said that just around the time he was leaving 461 they were just installing the large polys.

The pump house at the tank farm had several leaks, and he smelled vinyl occasionally at the unloading stations. Most leaks that he ran into were around the homogenizers in 451 paste and he said these used to be in pretty bad shape.

He is now an inside machinist and doesn't go into the plant much at all.

He said he never smelled VC around the dry building or the compounding or the mail room. In maintenance he has not smelled much VC; they were usually well-prepared and he never smelled any vinyls in the vessels. He never cleaned hard charges, he always turned on that overtime. He has never heard of any VC sniffers.

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This next man is a production man with 22 years of experience who started in the dryers -- he bagged for a year and then he went to building 451, poly cleaner for 2 years and then he was a charging operator for 3 years -- he went from there to building 461 where he was a blow down operator for 8 years and he worked in general chemicals for the last ten years now.

He says he did not smell much vinyl in the polys. He always took the vacuum hose in the poly with him. He said when you opened the manhead at first you had a few seconds of vinyl, but when they worked on the hard charges, they were told not to expose themselves to vinyl and that if they smelled vinyl to get out of the reactor. And he said that although he would have several seconds of short exposure to vinyl occasionally that he never stayed around it if he could smell it.

He was never dizzy from vinyl chloride except one time he was helping a man out of the building and he got a little light-headed. He said his feet got cold and the (?) mix while he was cutting a hard charge a time or two but he got out right away. In the poly area he said some vinyl chloride odors were evident but not too much; they were not exposed to very large amounts. The one time he was a little light-headed he was in 461 and the rupture disk blew - - he was helping a man out and he felt light-headed a little bit.

As a lay down operator in 461 occasionally the transfer pumps would leak and he would get a little vinyl from those.

He never knew of anyone who sniffed VC and he doesn't know of anybody by name who passed out from it. He does know of a few people who have become dizzy or light-headed but he said it was only in extraordinary situations like the case of the rupture disk. He never smelled VC at the tank farm but he said he could smell vinyl around the (?) tanks from time to time.

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TAPE 3 - Transcription - 6/9 - 6/10 interview notes Louisville - long service employees

... was made at the Louisville plant on June 9, 10, and 11, 1974.

This man is a production man with 12 years of service, primarily in building 121. He feels there is more vinyl chloride in paste than in plastic and latex in 121. He said that the helpers used to rotate between the jobs, spending a week at each job. There were two helpers, I believe in paste, who would spend two weeks in paste, and then a week each in plastic and latex.

Explosimeter readings used to be taken at the start of each shift on any setup poly. The safety people took the readings during the day shift; the guards took the readings on the evening and graveyard shift. He said in building 121 there were not too many setup polys.

His experience is that he could not smell VC in the cold room very often. He spent a few weeks in building 15 and said the odor of venelidyne was sickening to him whereas the odor of VC was sweet and fairly pleasant.

He said he doesn't remember too many explosimeter readings being taken and didn't know what they ran at all except that the men could into go into a poly to clean it until an explosimeter reading was taken and the needle wouldn't budge at all.

I talked with him about the cold room. He said to his knowledge only a few people stored lunches in cold rooms but some people stored their lunches in peroxide boxes that were around the building. He said that they did chill watermelons in the cold room occasionally, and as a matter of fact, he's eaten from a watermelon or two that was chilled in the cold room.

The helpers got more vinyl chloride while they were washing out the polys than while they were actually in the polys, cleaning them. He said the operators probably got as much exposure as the helpers did because they worked more with vinyl chloride than the helpers.

Generally speaking, each shift had a faint odor of VC in the air, but he doesn't remember that there was a strong odor very often.

This first man was very cooperative and appeared to be very frank in his answers. In general I think that as I just said, his recollection is that it was not unusual to have a faint smell of VC in the air but that they did not often get strong odors of VC. He has never passed out but he has been light-headed a few times.

He mentioned that the accolade holder in 121 was quite strong. He said that he thought he could smell VC inside of this.

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The first three and a half years of his service with the company, he cleaned polys. He said that the cleaners -- the poly cleaners always wore leather gloves until the hand problems -- they didn't wear rubber gloves.

He said if they smelled vinyl while they were in a poly cleaning it, their instructions were to come out of the poly right away. He said he did this.

This next man is a production man with 20 years of service with the company, mostly in buildings 121 and 111. He tells me he cleaned polys for the first ten years he was with the company.

He said the helpers got more vinyl when they were washing the polys out than when they went into the polys. Inside the polys they did not smell much vinyl.

Ten to 12 years ago they started taking the exhaust hose in the poly with them, until then, the only time they used an exhaust hose in a poly was with a setup poly.

In building 111, twenty years ago, they were using gate valves and he said you could always find liquid vinyl leaks. Ten years ago they replaced the gate valves with plug valves. During the past ten years the situation has improved a great deal.

Until 1957 in the Burner building (synthesis), you used to have to check the catalyst tubes every hour to see if there was water in it. Every time you opened the cat tubes, vinyl chloride came out. He worked in that six months as a relief operator.

He worked in the cold rooms six months to a year; had to sample each receiver several times each shift. He said that you really couldn't smell vinyl in the cold rooms all that much because it was so cold that the vinyl didn't vaporize as readily as it did away from the cold room but they used to have to draw samples for the lab and their method of drawing samples was just to run the vinyl into a container of some sort and every time they did that the vinyl would vaporize and they would get some fumes then.

He said the recovery operator on the second floor got a lot of vinyl as they were transferring PVC from the polys to the blow downs.

In a poly, a man could tell if there was vinyl because his feet got cold. And I guess the man would be standing in a poly and if they didn't move around too much the vinyl would lay in the bottom of the poly and he may not be able to smell it but he could tell there was quite a bit in there because his feet got cold as the vinyl level increased and he would get cold up to his legs and he knew he

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had to come out of there. This happened once in awhile, he said it happened once a week -- this was ten years ago or more.

In building 111, a man would clean five polys per shift on the average; in 121 a man would clean two polys per shift. In each building this totalled about 3 and a half hours per day in the polys. You probably would get a setup poly at least every two weeks.

He said the vacation relief man cleaned the setup polys along with the helpers. Lots of vinyl in the setup polys.

They would ventilate by using an air mover as well as an exhaust hose but that really wouldn't do much good because as soon as they got in the poly and started breaking up the chunks they would release more vinyl.

He was overcome one time seven or eight years ago. He was unconscious for just a few seconds; he was trying to close a valve at the bottom of a poly that had been left open and he was overcome by vinyl.

He doesn't remember people keeping lunches in the cold room but he said it wasn't uncommon at all for people to keep soft drinks in there. He doesn't know of anyone who intentionally got high, but he said that anybody who cleaned polys for any length of time probably did get high.

He said every time you washed out of a poly you had to be careful because you would smell vinyl and it would be easy then to get light-headed.

The guard used explosimeters on shifts. Always used it before they entered a setup poly but other than that he doesn't remember them being used too often.

He said back through the years that the manheads always leaked in a poly. You could always find a leak around a head but now they have done a lot toward correcting that.

He said in the past they have never made an effort to keep the stairwell doors closed but doing that now, he feels it's helped a lot in containing the VC vapors.

This man was hired in 1948; he is in building 115 at the present time and has been in that building almost continuously for the last 20 years. Prior to that he worked in building 1 and building 15 as a helper and 2nd class operator for 1 year. He has worked in building 11 as a helper.

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He did have acroosteolysis (AOL) and had some symptoms. However, at the time he had AOL we had not yet become very involved with it and nobody knew what it was. They thought he had a vitamin deficiency or arthritis. His knuckles were very, very painful and his fingernails became distorted. By the time we got involved in the hand problems, well, he had already healed.

He says that during the time he worked in building 1 or 15 they could always smell vinyl.

He said in building 115 over the last 20 years it has been common to smell vinyl both in the control room and the cold room. They ran samples of VC to check the aldehydes and alcohol they left the vinyl bar out on the floor while they were flushing the line and would fill a beaker with vinyl and would let it evaporate in the control room. Especially during winter they could smell always because the building was closed up and ventilation was poor.

Sometimes they would get a strong odor of vinyl. Practically all the time they could smell vinyl in the cold room.

They took explosimeter readings once a shift and he said that up until about three years ago the readings would be between 3% and 7%.

He said some lunches were kept in the cold room but it wasn't common, at least in building 115 where he worked.

Building 1 and 15 when he was working as a helper 21 years ago, he did get light-headed while washing the polys. Not all the time, but once in awhile.

Building 115 he had gotten light-headed in the cold room at time or two working around the equipment; he had never passed out.

Back in building 1 and building 15 they got strong vinyl odors while they were cleaning a setup poly. He said they didn't have too many setup polys but when they did have them they would get very strong odors from them.

This man is a hourly production man with 27 years of service. He worked in building 1 for less than one year as a helper, then he went into high car for five months, then he went back to building 1 and 15 as a helper. He has been in building 121 since 1950 as a recovery and charge operator.

Years ago, they had equalizing lines between the polys. The helpers had to put blanks in the lines before they went into the polys to clean them. Oftentimes they did not put gaskets when replacing the spools or whatever and then when they started

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charging the polys the gaskets would leak under pressure. This man tells me that they would try to replace the gasket without letting the pressure off and oftentimes would fill the building with vinyl and you would get drunk. He said he's been drunk a number of times but never passed out. One time he came close to passing out while he was working in a poly but he was able to get out in time.

He said he's about lost his sense of smell now after working with vinyl all of these years.

He said it was not uncommon twenty years ago for a man to pass out -- it didn't happen all the time but it wasn't uncommon.

He said he's seen people use explosimeters -- the guards, or the safety dept. or the foreman, but he doesn't remember any of the readings.

In cleaning a setup poly he said they would stay in there for hours at a time and he said their feet would stay cold from standing in the vinyl but he doesn't remember too much of a vinyl smell while he was cleaning. He said they had an evacuation hose in the poly with them.

He said he's never smelled vinyl in the cold room in 121. He said he doesn't go in there often; he said the last time he was in there was about a year ago. They used to store their drinks and lunches in 121.

He said he remembers seeing a man bleed vinyl out of a line onto a coke bottle to chill it down fast using evaporation of the vinyl.

He said he doesn't know of anyone who smells vinyl deliberately to get drunk but he says that could happen.

This man is a production supervisor with 42 years of service with the company, all of it in vinyl chloride. He started in building 1 for six months as a helper, then he became an operator and worked 2-3 years as a charge operator and a synthesis operator in building 1 before he was made foreman. After that he worked in building 1, 15, and 127 as a foreman up until 1947 when he moved to plant 1 and has been a foreman there since that time, working in buildings 111, 121, 112, 127, and the EDC plant.

He said that up until the last two or three years there have not been many changes in the levels of Vc in the plants. There has always been quite a bit of exposure to vinyl; it is not uncommon at all to smell vinyl in any of the poly areas. Manheads leak... years ago in opening the manheads they would leave pressure in the polys; crack the heads and relieve the pressure right into the building.

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After the HRCs came into use, the polys would not be evacuated properly when they put the HRC into the poly and the unit itself would cause the vinyl to pour out onto the floor. He said that a person was overcome with vinyl on the average about once every six months, most of these were poly cleaners.

Talking about explosimeter readings, he said that around the packing on the pumps, two or three inches away from the pump he would get a reading of about 20%. The general atmosphere readings many times would be zero, however, it wasn't unusual to read 5 or 10%. And as a matter of fact, he would not be too concerned even if the meter read 20% or above - it was only when the meter got in the middle range when people would get concerned about the meter readings.

He said the meter would have to register in the neighborhood of 5-10% before you could smell the vinyl in the area. He said probably about a few times a week they would get a 50% reading, but the average reading in the general atmosphere would be 5 to 10%. This condition existed up until 2-3 years ago.

In the cold rooms themselves, you'd get a 20-30% reading normally, however, he said that the operators did not normally go into the cold rooms more often than once a day and they would stay in there just about 5 minutes at a time.

He said that at first people used to keep their lunches in the cold room - it was common to do that, but later safety became quite active in trying to keep that from happening that after that, although they'd keep soft drinks in the cold room, it wasn't too often that they kept their lunches in there. And the same thing applies to the peroxide boxes. Safety starting cracking down and it wasn't too common.

Years ago, about twice a week, people would get dizzy or light-headed, not poly cleaners, but people working in other areas in the polys it happened much more often.

He said he's been dizzy about 12 times. There were a couple times he almost passed out but he's been able to make it outside. He said the men that he has seen them pass out, it generally took them 10-15 minutes to wake up after they got them out -- most of these men were poly cleaners.

This man has 32 years of service, he's a maintenance man. He has worked all over the plant, in the past two years he's worked in building 1 and 15. As a maintenance man he often got woozy from VC and he said it was a rather common thing through the years as they had broken a line or taken a valve off that any vinyl in the line or in the system would just drain on the floor. Until recently

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they made no efforts to bleed the line before they disconnected it.

He doesn't know of any maintenance people who have passed out, however, it was quite common for them to get dizzy or high.

VC makes him sick to his stomach. If he gets enough to get woozy, after that passes, he is sick to his stomach for awhile.

He said they smelled vinyl primarily in the poly building although they did smell vinyl in the synthesis building coming off the cat tubes. He also said that the cat box between building 1 and 15 has always been pretty bad as far as vinyl odor is concerned. He said it wasn't unusual at all between if you're walking between building 1 and 15 to get a vinyl odor on the cat walk.

In the cold rooms, he said he could always smell vinyl when they went in there to work. They used to see people keeping lunches in the cold rooms but years ago they put a stop to that and he didn't see that much anymore.

He said primarily you smelled vinyl in the poly buildings; you very rarely smelled it in the warehouses or compounding areas unless the wind was blowing in the proper direction and if there was a big leak in one of the poly buildings upwind of the warehouse or the compounding area, then you would get vinyl odor for awhile.

This man is in the maintenance dept.; he has 28 years of service. For the last two years he has worked in the shop.

In general, he said that in the poly building you could smell vinyl on the 3rd floor pretty much all of the time. But as far as vinyl in the polys was concerned, that by the time the maintenance dept. got into the polys they had been cleaned out, and you could very seldom smell vinyl in the polys but that it wasn't uncommon to have vinyl leaking through a valve 10-15 years ago and there just wasn't the effort to keep the amount of vinyl escaping down.

He has gotten drunk from vinyl, but never did pass out and he doesn't know of any maintenance people who have passed out from vinyl, although he thinks that there may have been one maintenance woman he thinks may have passed out one time in a building.

Lots of vinyl in the cold room. It wasn't uncommon at all to find vinyl in the cold room when they would go in there to do some work.

Generally speaking, outside of the poly buildings though, he said he couldn't smell vinyl in other sections of the plant, even in the tank farm or in the warehouses or compounding areas or even the dryers unless the wind was blowing right.

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He said it was a common thing for production to keep their lunches in the cold room -- but mostly on shifts, not on day shift, until the safety department started a push against that. The production people did it all the time but the maintenance people didn't because they ate their lunches in the shop.

He said they used to get vinyl in the sewers occasionally -- they would have to seal off the sewers so the vinyl wouldn't escape.

This man is a production supervisor with 20 years of service. He started out in buildings 1, 15 and 111 as a helper, and worked there for 8 years. Then worked in the same three buildings back and forth between helper and operations. Worked as a dryer operator in building 15 then went to building 4 in 1960 and worked there until 3 years ago when he became a foreman and now works between building 4 (the solution resin) and building 15.

He said that during the time he worked there as an operator, he cleaned between 4-5 polys a shift, and the time in each poly ran between 15 minutes and an hour. He said that he always took an exhaust hose into the poly with him and the first thing he did when he climbed into the poly was to check the floor of the poly by bending over and smelling to see if he could smell any vinyl. Or if his feet got cold, he would come out of the poly and would put the exhaust hose back in.

He says he has never been dizzy or light-headed from vinyl or has never passed out. He said that the most effect that he's gotten is after smelling vinyl is that his lips have tingled.

He also said that he has never gotten a strong odor when washing the poly. I wonder if he is desensitized or insensitive to the odor of vinyl.

He said he could not smell vinyl all the time on the charging floor but only when there was a bad leak.

He has cleaned setup polys and even then he said although he did smell some vinyl when they chipped down into the PVC he wouldn't say he had gotten much strong vinyl odor and any time he has smelled vinyl he has come out of the poly and rather quickly put the exhaust hose back on. He said he's always used an air mover when cleaning the setup poly in conjunction with an exhaust hose.

He said that he worked in the cold room and that generally speaking he didn't get a strong odor of vinyl there unless there was a bad leak, which happened occasionally. Or he would draw lab samples of VC in a beaker and most often they would just throw the vinyl on the floor to evaporate.

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He said he's never smelled vinyl around the dryers, nor the warehouses, nor the compounding areas.

This man is a production operator with 28 years of service. He spent four years in building 1 and 15, 6 months as a helper and the rest of the time as an operator. He said in the early years they used to fill the poly with water and let the VC pour out onto the floor.

He passed out once in a poly and has gotten dizzy a number of times. He seems to pride himself that he can breathe vinyl chloride or work with chemicals without suffering any ill effects while weaker men get cancer.

He next went into building 111 and spent 19 years as a charge operator and then went to building 1 and 15 again and worked as a relief operator. Now he is back in building 111 working as a daily relief operator.

He gave about the same story as some of the other people have. In talking about the cold rooms, he said you normally could smell VC in the cold rooms, however, it was not too bad unless there was a major leak. He said you could always smell vinyl in the poly area of the building.

He said a number of people did keep their lunches in the cold rooms but that has more or less stopped since the safety dept. has made such a push against that.

This man is a production operator with 24 years of service. He started work in building 1 as a helper; stayed there a year and a half, went to building 15 as a recovery operator, stayed there for a year or two. Worked in building 129 and 112 as a spray dryer operator for a year and then moved back in forth -- has been in building 121 for most of his experience either as a plastic operator or a paste operator...

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