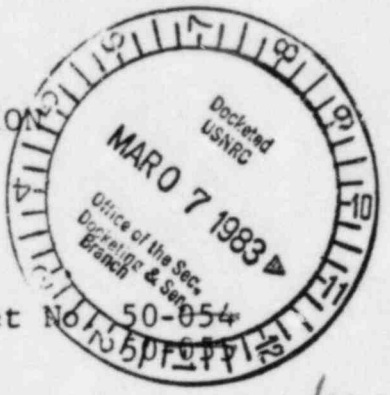
UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION



In the Matter of	)	
	)	
COMMONWEALTH EDISON COMPANY	)	Docket Nos. 50-454
	)	50-455
(Byron Station, Units 1 and 2)	)	

454/455

SUMMARY OF TESTIMONY

OF

DANIEL W. GALLAGHER

Mr. Gallagher worked for Blount Brothers Corporation from 1975 to 1979 as a concrete batch plant operator.

1. The Ross batch plant system was incapable of mixing competent concrete.

2. Excessive water was added to concrete and not recorded.

3. Supervision and inspection of placement of concrete was inadequate.

4. Blount had no maintenance program for the batch plants.

5. Blount personnel lied to NRC inspectors.

6. Aggregate containing excessive fines was used in concrete for safety-related structures.

7. Oil leaked into the concrete during the mixing process.

8. He was fired when he refused to mix incompetent concrete for safety-related use.

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DIRECT TESTIMONY

DANIEL W. GALLAGHER

Q Please state your name.

A Daniel W. Gallagher.

Q Where do you live?

A Genoa, Illinois.

Q Were you employed by Blount Brothers Corporation to work at the Byron Nuclear Plant?

A Yes. I worked there from August of 1975 to November of 1977 and from February, 1978 until I was fired in June of 1979.

Q Were you a union employee?

A Yes. I am a member of the Operating Engineers Local 150 and have been since 1974.

Q What is your educational background?

A I attended several different colleges and universities and have the equivalent of a bachelors degree in literature and philosophy; however, I refused the actual degree. I have served in the armed forces. Blount Brothers sent me to school in Erie, Pennsylvania

in February, 1976 to learn the Erie-Strayer Batch Plant which I operated at Byron.

Q Did you submit an affidavit in this proceedings?

A Yes. It is marked as Exhibit A to this testimony.

Q While you were at Byron, what was your position?

A As a concrete operator, I operated the batch plants.

Q Please describe your duties as batch plant operator.

A I'd mix concrete for Byron Nuclear Plant and maintain the concrete plant to make sure it functioned properly.

Q Was there more than one batch plant at Byron?

A Yes; there was the Ross plant and the Erie-Strayer plant.

Q Please describe the differences between the Ross plant and the Erie-Strayer plant with respect to the capacity of each plant.

A The Erie-Strayer plant was a computerized plant. It mixed concrete in a drum, and had a 10-yard maximum compacity. It dumped the "wet mix" into the trucks to be taken to the placement center. The Ross plant was a "dry mix" plant with a maximum capacity of 4 yards at a time. The

dry mix was dumped into trucks to do the final mixing. In other words, it was up to the trucks to do the final mixing of the ingredients when the Ross plant was being used.

Q What is the difference between "wet mix" and "dry mix"?

A In a dry mix plant, all of the ingredients are weighed up onto scales and deposited into the truck that does the mixing. This includes water, cement, additives, stone and sand. In a wet mix plant such as the Erie-Strayer, the same ingredients are weighed up, only on a larger scale, and deposited into a mixing drum that does all of the mixing. The term wet mix means that the concrete comes out of the plant ready to be placed, so all the truck has to do is just haul it to the placement center.

Q Please describe how you were trained to run the Ross plant and Erie-Strayer plant.

A The Erie-Strayer plant was the first one I learned to run. I learned mainly by on-the-job training. The operator with me and the supervisor taught me to run it. Then I went to school in Erie, Pennsylvania to understand better the actual operations of the computer itself. The Ross plant was manually run, and after running the computerized Erie-Strayer plant, it was easy to do. Also, if I had any problems, Don Pope would help me out.

Q Who was Don Pope?

A He is the person referred to in my affidavit as "the experienced batch plant operator."

Q Did you learn how to run the Erie-Strayer plant before you learned how to run the Ross plant?

A Yes. It is much more complex than the Ross plant.

Q Did you have much experience with mixing concrete before you started at the Byron Plant?

A No. Most of my construction work experience had been on road construction.

Q Did Don Pope [illegible] ed about mixing concrete concrete at Byron?

A Yes. He trained me.

Q Were there differences in the quality of the concrete made by the Ross plant and by the Erie-Strayer plant?

A The difference in the quality of the concrete made by the two plants is that the Erie-Strayer was designed for mixing concrete for construction products such as a nuclear plant. It produced good quality, uniform concrete because the mixing drum and the computer controlled everything. The Ross plant had only a 4 yard

capacity and did no mixing whatsoever. The operator would just weigh the ingredients and charge them in the truck; the truck did the rest of the mixing. However, the trucks which Blount provided, known as "CMC" trucks, were transport trucks. They were not designed for mixing concrete from a dry mix plant, but rather for transporting already-mixed concrete from a wet mix plant. I know that the CMC trucks could not adequately mix the dry mix concrete because I saw the mix, and also I would hear the truck drivers and other workers at the plant complain about the fact that concrete which was supposed to have been mixed in the CMC trucks was not properly or sufficiently mixed. When the Ross plant was being used, the mixing was supposed to be done in the trucks, but the trucks Blount supplied were incapable of doing the job.

Q To your knowledge, were uniformity tests run on the Ross Plant either by Blount Brothers, Commonwealth Edison or the NRC?

A I do not recall any whatsoever. I do recall that we tried different methods of discharging the materials into the truck, which charging sequence should be followed, etc. As a result, we followed the same sequence as the Erie-Strayer plant.

Q Do you recall any uniformity tests being run on the Erie-Strayer plant?

A Yes. There was a testing company on site for this purpose, but I do not recall their name.

Q How often were uniformity tests run on the Erie-Strayer plant?

A I recall tests being run only twice during the time I was there.

Q Were both the Ross plant and the Erie-Strayer plant supposed to have been calibrated periodically?

A Yes.

Q Please describe what was involved in calibration of the plants.

A A company, whose name I do not recall, came out and checked the scales,using weights. They would calibrate the aggregate scale and cement scale, and also the device which measured the water. Both plants were calibrated every 90 days. The devices measuring air entraining and pozzilith (a water reducer used when the cooling towers were being poured) were also calibrated.

Q Were you involved in the actual calibration process?

A Yes, of both the Erie-Strayer and the Ross plants.

Q Was it necessary to shut the plants down in order to do the calibration?

A Yes. There would be no concrete that day until the calibration was done. The time calibration took would vary. For example, sometimes there might be something wrong with the scale, or dust or dirt that had to be cleaned out and that would take longer.

Sometimes calibration might be done by 1:00, but other times it wouldn't be done until 4:00 pm.

Q Can you recall any other tests being run on either the Ross plant or the Erie-Strayer plant?

A No.

Q Was the Erie-Strayer plant the plant that was relied on for production of most of the concrete at Byron?

A Yes. The Ross plant was classified as a back-up plant. When I first started there, as I understood it, Blount had to have back up plant for continuous pour situations in case the main plant broke down. I believe the requirement was that either a capable concrete plant was available within so many miles of the project, or a back-up had to be on the site. This was because in a continuous pour situation, if the main plant broke down the back-up plant would be used so that the pour would not be interrupted.

Q Was the Ross plant used for purposes other than as a back-up plant?

A Yes. It was used for minor things such as backfill or when a cheap mix was needed to cover pipes.

Q Do you recall the Ross plant every being used for safety related concrete?

A I do not recall specific instances or pours, but records may exist which would show that. I know we tried different mixes at one time but I don't know whether it was safety related. It was the same mix design as safety related and it didn't work with the Ross plant, so they used the Erie-Strayer plant for it.

Q Were there times when both the Ross plant and the Erie-Strayer were being run?

A Yes.

Q Do you know whether the concrete from both plants went to the same place?

A I don't recall.

Q While you were running either of the plants, how did you know whether a pour was for safety-related concrete or non-safety related concrete?

A A batch ticket would come down from QA/QC and it would have a certain box checked if the pour was safety-related concrete.

Q Please explain "Attachment A" to your affidavit.

A That form was filled out by the batch plant operator for the batch of concrete that was put in the truck to be transported to the

center. On it would be recorded whatever went into the batch, and the driver would take the ticket with the load of concrete to the placement location.

Q Did the batch plant operator fill out the form in a different way depending on whether the concrete was for safety related or non-safety related use?

A We had to check the box if it was safety related.

Q Did the order ticket tell for what part of the Byron plant the concrete was destined?

A Yes. It always gave a location and this had to be put into the computer, so that it would be recorded on the batch ticket. The driver then took it to the placement center.

Q If you were running the Ross plant, how would the information be recorded on the ticket?

A It would be recorded manually by a clerk to whom I gave the information.

Q To you,as batch plant operator, what was the significance of whether a batch was to be safety related or not?

A If it was safety related, I had to sign a ticket, such as Attachment A, which in my mind made me responsible for that batch.

For the sake of my own conscience, I would not sign my name to a safety related batch unless I was absolutely certain it was a quality product.

Q In your affidavit, you talk about your impression that Blount was under pressure from Commonwealth Edison to increase concrete production. Please explain how you reached that conclusion.

A It was common knowledge that the Commonwealth Edison had a tight construction schedule. I would hear from superintendents or from other workers that Commonwealth Edison personnel would become extremely angry if there were mistakes or if something happened to make the workers fall behind schedule. Also, as I state in my affidavit on page 3, I knew that CE superintendent Gunner Sorenson often reprimanded Blount supervisors for failure to meet production levels, and would regularly complain that the concrete quotas weren't being met.

Q Do you think this pressure caused Blount to run both plants during safety-related pours?

A. Yes, I do. Sometimes there would be as many as five or more locations for pours, and I would be told to run the Ross plant also so we could get more concrete poured. In other words, it caused us to run both plants at the same time, although I do not recall where all the various batches of concrete were destined.

Q How did you become aware of the pressure on Blount?

A Blount personnel always getting called over to the Gunner Sorenson's office. Mr. Sorenson was Commonwealth Edison's top person on site. I could hear the superintendent say that Commonwealth Edison was "getting wild" about the pace of production.

Q On pages 3 to 5 of your affidavit you also talk about problems with aggregate. Please explain what aggregate is.

A Aggregate is the natural stone that is put in the concrete. It can range from sand up to whatever larger sizes are required by the specifications. Aggregate is important in making concrete because it binds and provides strength to the finished product.

Q Do you know whether the aggregate being used at Byron had to meet certain specifications?

A I never did see specifications; I do know, however, that the aggregate pile was condemned at one time for failure to meet certain standards.

Q While you were employed as batch plant operator at Byron, did you notice any problem with the aggregate?

A Yes. There were so many fines in the aggregate that the conveyors bringing it into the plant would become covered with mud.

Q Is aggregate always washed before it is put into a batch plant?

A It is supposed to be.

Q Was there a time while you were working at the Byron Plant that aggregate was being washed because it had too many fines in it?

A Yes. After the pile was condemned in 1978 they brought in a wash plant to rewash the pile. The aggregate which could not be salvaged by rewashing was supposed to be discarded.

Q Is that a different washing process than the normal washing of the aggregate before it goes into the batch plant?

A Yes. The aggregate is supposed to arrive on site in a washed state. At that time it is supposed to be to specifications and then once it is on site it is not washed again. The aggregate in the pile apparently failed and they had to rewash it after it had come on site.

Q Was the aggregate on site wet when it came into the batch plant?

A The aggregate was hauled in daily and some of it had just been washed. There was also aggregate that had been washed and then put into the pile and had dried out before we used it.

Q When dry aggregate with too many fines in it was used, what did it look like when it came into the batch plant?

A It was dusty instead of muddy.

Q How long did the problem of too many fines in the aggregate go on?

A From the time I started in 1975 until the time they condemned the aggregate pile in 1978. It was a recurring problem.

Q When was the pile condemed?

A I believe it was about a year to a year and a half before I left Blount.

Q After the pile was condemed, what was the source of the aggregate you used?

A New aggregate hauled onto the site.

Q Was the new aggregate acceptable?

A It seemed to be more acceptable; the supplier seemed to be doing a better job of washing it. I do not recall as much of the mud as had been the case prior to condemnation.

Q Did anyone at Blount express concern about the quality of the aggregate?

A Don Pope and I discussed it frequently. Also, as I state in my affidavit, my supervisor and Don Pope, while I was being trained

in 1975, told me that the aggregate did not meet specifications for safety-related use. I heard Don Pope complain many times to Commonwealth Edison engineers about the aggregate, but Edison did nothing to remedy the problem.

Q You mention in your affidavit a time when an Israeli engineer was observing operation of the batch plant. When was this in relation to condemnation of the aggregate?

A It was sometime in 1976, several years before the condemnation of the pile.

Q Please describe the conversation with the Israeli engineer.

A He and Pope and I were in the Erie-Strayer trailer. The engineer was talking to Don Pope and he asked what aggregate we were using. Either Pope or myself indicated that it was from the aggregate pile in back of our batch plant. The Israeli engineer said "You're kidding. That's rather dirty." Pope said, "Well, that's what we're using." When we informed him that that was the aggregate we were using to make concrete for the containment building, the engineer seemed amazed and said that it was not clean enough to be used in safety-related concrete.

Q At that time, where in the plant was concrete being poured?

A The underground portions of both containments and the turbine

buildings, as well as some out buildings.

Q Are you able to estimate how much concrete was made with the non-complying aggregate?

A As I state on page 4 of my affidavit, about 100,000 yards, or enough for one entire containment.

Q In your affidavit, on pages 5 and 6, you talk about incidents of lying to NRC inspectors. Please describe what would happen in this type of circumstance.

A The NRC inspectors would come down to observe the batch plant, to see that the calibration had been performed, and check out the operation of the batch plant. They would walk around looking at the machine and a QA/QC person from Blount, usually Lou Andre, would be with them.

Q Did you ever meet Rick Donica with Blount?

A I recall talking with him on the telephone if I had a question about a batch order, and he would sign some of the order tickets.

Q Do the lying incidents in your affidavit specifically refer to a particular Blount employee?

A Yes, Mr. Andre.

Q Please describe the conversations that you would overhear.

A The NRC personnel would ask about maintenance operations and the Erie-Stayer plant. Mr. Andre would say, "We have a schedule of

maintenance for this plant." As far as I know, this was not true. If there was a maintenance schedule, I did not ever see it. It was up to Don Pope and me to keep the plant running. The only way the plant was maintained was because Don Pope and I did it ourselves.

Q Why did you and Mr. Pope maintain the plant?

A It was our feeling , as conscientious workers, that we wanted to keep the plant running in top form so that we would consistently make good concrete. If there was a failure that we noticed and we could not fix it right ourselves, we'd notify Blount that we had to get it repaired before we continue production. This way we could assure continuous concrete pours and continuous operation.

Q Were you and Don Pope the only Blount people who worked with the Erie-Strayer plant?

A Yes. If there was any maintenance to be done, it was done by me and Don Pope. If there was something we could not fix ourselves, Blount, at our request, would call in mechanics from Local 150.

Q Would you and Pope have known if any other Blount people had come in to perform periodic maintenance of the plant?

A Definitely. Don Pope was adamant about that. He would often say "This is my plant and I'm responsible and don't anybody touch

it unless I supervise." He took a real personal interest. Also. at one time there was a particularly heavy pour schedule. Don Pope and I were shifted so that we no longer worked the same shift. He would have the day shift and I would have the night shift. If something occurred on my shift that had to be repaired before he could operate the day shift, I would leave notes for him to say I had made a repair, or to keep an eye on something in particular. In this way, he would know exactly the condition of the plant the next morning when he came to work. He did the same for me. All of the maintenance that was done on the Erie-Strayer plant was done by me and Pope because we were good, conscientious workers.

Q Based on your working relationship with Don Pope at Byron, what do you think of Mr. Pope and the work that he did there?

A Don Pope stood up for that plant and defended it. He was very conscientous and he would never mix a bad concrete batch, and he told me never to mix a bad batch. If he could see it coming out of the drum and it was bad he would notify QA/QC or the supervisors and they would take a look at it and either throw it away or accept it. I had a lot of faith in Don Pope's ability and conscientiousness. He taught me everything I knew, and he taught me to be a good, conscientious worker who always made a quality product. He's one of the best teachers I've ever had as far as running the machine, and I've consulted him since I left the Byron job site about different machines I was running on other jobs.

If I had a problem with a machine he would advise me. I'd ask him, and he would help me with various mechanical things that I was having problems with. Also, I was very impressed with his adamant feeling to make the machine function properly. Don Pope told me that he used to tune up race cars so they would run properly, and that was the way he wanted the Erie-Strayer plant tuned.

Q In your affidavit you talk about water being added to the concrete. Did the specifications or formula for the concrete that you were making tell you how much water to add?

A Yes. The amount of water that we would need to add would vary sometimes from day to day, depending upon the moisture of the aggregate and other conditions. For example, the outside layer of the pile might be dry, but aggregate on the inside might be wet; if it rained, it would be especially wet and we would have to cut back on water.

Q Do you recall times while you were at the Byron plant when safety-related pours were occurring and it was raining?

A Yes. The weather seldom stopped us. The rain also adds water to the concrete. I can recall one time we had a heavy downpour, and by the time the truck got to the placement center it was a higher slump than had left the plant.

Q Please explain what slump is.

A Slump is the thickness of the concrete. The higher the slump, the wetter the concrete; the lower the slump, the dryer the concrete. Concrete with a high slump is runnier. Concrete made with a high slump is weaker than the concrete made with a low slump.

Q Were you told at what slump the concrete was to leave the plant?

A Yes. I don't know whether this was a written specification. Don Pope had had previous experience and he knew what slump it should be. He ran it usually between 3½ to 4½ and told me to make concrete at that slump also.

Q Would the slump of the concrete change between the time the concrete left the batch plant and the time it was poured at the placement center?

A Yes. There is a chemical reaction which makes it heat up. Heat evaporates the water and if the truck sits too long waiting to unload at the placement center the slump would be lower. They might have to add water at the placement center to raise the slump. There was a time limit for concrete to sit in the trucks, and after that they were supposed to reject it. We tried to keep the slump of the concrete leaving the plant uniform because sometimes they could dump it immediately when it got there. Other times, however, they could not pour it immediately and it would sit in the trucks. In this situation, the slump would decrease the longer it sat.

Q Is concrete with a lower slump more difficult to pour?

A Yes. The concrete had to be vibrated down among the reinforcing rods. The higher the slump, the easier it is to work down among the rods. Also, the cement finishers have a much easier job if they have a higher slump, so the people at the placement center would always be asking for more water. They preferred a higher slump so they could work with it more easily.

Q Do you know whether there was any rule or specification about what the slump of the concrete had to be at the time it was poured?

A I don't know of any rule or specification but I understood it was supposed to be three and a half inches.

Q Were there ever occasions when water was added at the batch plant in order to increase the slump?

A We start out in the morning and the aggregate might be dry. It's always easier to add water than to take it out. I would have everything deposited into the mix drum, and I had a meter that told me how many amps the motor was pulling in order to mix the concrete. I knew where a three-inch slump or a two-inch slump or a four and a-half inch slump was on the meter. There were times that I'd have to add water to get it to the right slump. I only did that so when the concrete left the batch plant it would be at the proper slump.

Q Did you ever hear anyone talk about adding water at the placement center?

A Yes, frequently from drivers.

Q Would the drivers be in a position to know whether water was being added at the placement center?

A Yes, they would. Drivers transported the concrete from the batch plant to the placement center and backed the truck into the area where it would be poured. They would control the engine and have a laborer in back of the truck controlling the concrete coming out of the truck. The drivers stayed at the placement center while it was being poured from the truck into whatever area they were pouring.

Q Did drivers ever tell you that water was being added at the placement center?

A Yes, they often did. Sometimes water was added because it was necessary to increase the slump; however, sometimes it was added just to please the finishers and other people so that the concrete would be easier to work with.

Q When water was added at the placement center, were you under instructions to write that down on the batch tickets?

A No. The reports are supposed to come back on the batch ticket to the batch plant stating that the water was added and how much. Sometimes on the radio they would call back and say they were going to put five gallons in and ask me to change the next batch that I was making. They were telling me how to change the mixture so that the next batch would be the right slump when it got to the placement center.

Q How was it recorded if water was added at the placement center itself?

A The QC people there were supposed to write it down on the batch tickets so there would be a record of it. We received a copy of the ticket later which showed water added at the placement center.

Q Were there instances where water was added at the placement center without that fact being recorded on the batch tickets?

A Yes. Many of the workers I used to talk with said they added a lot of water frequently and especially if nobody was around to check on them. The only record I would ever see was when the copy of the ticket came back to me from the placement center. Sometimes the drivers would come in the office and I'd ask how the concrete was looking and they'd mention that water was added at the placement center, but there was no record of it in the tickets I received back.

Q On page 6 of your affidavit you talk about testing every certain

number of yards of concrete, and that CE did not have enough engineers to watch every batch. Were these tests being done at the batch plant or at the placement center?

A At the placement center. Commonwealth Edison had faith in Pope and myself, and they trusted us to only mix concrete that was within specifications. They watched the placement end of the operation to be sure it was being placed properly and it was the right slump so they could make sure the specifications were being met. However, sometimes they would be pouring in four or five locations, and the drivers and other people on site would chuckle and say, "Once an engineer turns his back to check another truck, you've got to watch those Blount people because they'll add water." In other words, the drivers would tell me that it was a question of wating until the Edison engineer was busy doing something else and then Blount would add more water in order to make the concrete easier to work with. Also, I know QA/QC workers didn't make much money, and if the QA/QC person disagreed with adding more water, it was easy for the Blount production supervisor to say "Put the water in there anyway."

Q In your affidavit you talk about a problem with oil in the concrete. How do you know about this problem?

A Glen Garrison told me. I did not observe it myself and wasn't in a position to see the oil once it was in the concrete. I was dumping cement into the plant and because the concrete is in motion I would not be able to see whether there was oil in it.

Q Did Mr. Garrison say where in the process of making concrete was the oil getting into the concrete?

A Yes. The oil was leaking into the cement, which is a dry powder that was blown into the batch plant. In the "pig mechanism that transported the cement into the batch plant, oil was leaking. There were four pigs there and I don't recall which one was leaking. The leak was in the blower. The blower was powered by an engine and it would compress the air and the air pressure would blow the cement into the plant through hoses and pipe. Glenn Garrison ran the pig which supplied the plant with the cement.

Q How frequently did Mr. Garrison say that oil was leaking into the cement?

A I specifically recall at least three or four times over the course of one month. Garrison talked to Pope about it and he talked to the supervisor, Mr. Osborne. I overheard it because we'd all be in the office together.

Q What was Mr. Osborne's reaction?

A He said he would make note of it.

Q Do you know whether the blower was finally fixed so it wouldn't leak?

A I don't know. This occurred toward the end of my time with Blount.

I do know, however, that it wasn't corrected right away.

Q Can you describe for me the circumstances under which you left Blount?

A I reported into the gate that day and I knew the calibration of the scales was due, and apparently it was set up for that day. The foreman said, "I think you're going to run the Ross plant." I saw the batch order, and the order was for safety-related concrete.

Osborne, the superintendent, came in and said, "Dan, get over to Ross plant and fire it up. They are calibrating scales here."

I said, "Look at this ticket. It says 'safety-related'. I'm not going to mix safety-related concrete out of that plant." It was summer, we'd have to use ice in the mix. I knew from my previous experience with the Ross plant that the trucks could not integrate the ice and that the resulting concrete would be incompetent.

Osborne said, "Yes you will."

I said, "No, I'm not. I'm not going to sign my name to anything safety-related coming out of that plant."

Osborne said,"Well, you either do it or down the road you go." That's when I called the union to see if I had to sign my name to it.

Q What were you told by the union representative?

A Pat Blackburn was told what had happened. He asked me, "Would you

mix it if you didn't have to sign your name to it?" I said yes. He said,"All right, put Osborn back on and I'll tell him that."

He asked Osborne if I had to sign my name to it. Osborn said "yes." Blackburn told Osborn that I wouldn't mix if I had to sign my name to it. Osborn said, "That's it, then."

Q It is your understanding that you had to sign a ticket only if it was safety-related?

A Yes. If concrete was not safety-related I did not have to sign the ticket.

Q Were you certain that this was safety-related concrete?

A Yes. Osborn stated that I had to sign it because it was checked 'safety-related'.

Q Do you know where that concrete was going?

A The cooling towers.

Q How do you know that?

A Because Ecokel had ordered it, and they were the company working on the cooling towers.

Q Did Ecokel ever order safety-related concrete besides this one particular instance?

A Yes. Some of the batch tickets for their work were marked safety-related and some were not.

Q Do you know why?

A No. It was never explained to me, but Osborne and Bill Beesig were insistent that I sign the safety-related ticket.

Q Is there anything you would like to add to your testimony about this incident?

A Yes. When I was taken up to Osborn's office to get my check, Bill Beesig came storming around the end of the hallway. I said something to him and he said, "It was pretty damned funny you didn't know anything about concrete four years ago and all of the sudden you know all about it."

I said, "Well, I had two good teachers, Don Pope and Frank Page." That really made him mad because Pope was always insistent upon everything being done absolutely right.

Q What position did Bill Beesig have?

A He was second in line for Blount. His superior was Charlie Smith.

Q Did you have many dealings with Beesig?

A No, other than this instance.

Q You stated that you were employed from August, 1975 until November, 1977 and then February, 1978 until June, 1979. Can you tell me why you left Blount in November, 1977?

A Yes. We were having a big pour, and I was sitting out at the Ross plant in case they needed more concrete than the Erie-Strayer could produce. Don Pope had to do the whole job himself; he had all of the responsibility on the Erie-Strayer plant. At 4:30, they sent me home, and I thought this was ridiculous. The Ross was supposed to be a back-up plant and Pope wanted me in the main plant with him. He complained that he'd like to have me back, but Blount wouldn't do it. So I said to Osborne, "What did you have me sitting over there for? I'm needed over here. If the Erie-Strayer breaks down, I can always go back over and run the Ross."

He said, "That's the way it came down from the office."

I said, "OK." So this went on for a couple of days and I said, "Can't you go to bat for me?" He wouldn't do it. I could see a lot of strain on Don Pope and I knew he wanted me over with him and he was getting tired, and so I said, "Well, listen. If you don't need me now after 4:30, then you don't need me anymore." I thought the whole situation was unfair to Pope so I quit.

Q Did Blount hire you back a few months later?

A Yes. I don't know whether they specifically asked for me at the Union Hall, but I know Don Pope wanted me back because he and I

worked so well together and he depended on me, as I depended on him. So the request might have been instigated by Pope.

Q Did you and Pope get along?

A We always did until my affidavit became public.

Q Can you explain to me, in your own words, why you were willing to sign an affidavit and testify at the Byron hearing?

A Yes. I can remember when I got fired. Glen Garrison quit the Monday or Tuesday after I was fired. He thought he was going to get fired because he had some experience with atomic energy in the service and he was afraid of it. We had talked about that and also we got a lot of information from people opposing the plant and we'd talk about that also. I talked to people who worked on the job who saw sloppy construction practices, and I saw some myself, and questioned the safety of the plant. The accident at Three Mile Island scared me too.

All I want is for the Byron plant to be safe, because my family lives nearby. It's a source of energy that can be useful to man as long as it's done properly and safely.

Q How far do you live from the Byron plant?

A I think it's just 30 miles.

Daniel W. Gallagher

Exhibit A

Affidavit

AFFIDAVIT

DANIEL W. GALLAGHER

My name is Daniel Gallagher. I have been a member of the Operating Engineers Local 150 since 1974 and have worked as a concrete mix operator since 1975. I am also active in local politics. I was Chairman of the Democratic Party of DeKalb County of Illinois from 1978 to 1980. I was alderman of the 2nd Ward in Genoa, from 1977 to 1981. Recently, I was defeated by a small margin in the Genoa mayoral race.

I was employed as a batch plant operator for the Blount Brothers Corporation (Blount) from August, 1975 to November, 1977 and from February, 1978 to June, 1979 at the Byron Nuclear Power Plant being built by Commonwealth Edison Company (CE). All statements below refer to events which occurred during my employment with Blount at the Byron plant site.

I was fired by Blount in June of 1979, when I refused to mix incompetent and unusable batches of concrete and approve their quality for safety-related use. The incident arose when the main computer-measured mixing apparatus was receiving a calibration inspection. While this mixer was shut down for inspection, my supervisor directed me to utilize the back-up mix system, which was a dry batch system. I had assisted in the construction of the back-up mixer and had operated it in 1977. The system only worked when mixer trucks were utilized in the process. At the time I was asked to employ the back-up system to fabricate the concrete, agitators, also known as transfer

trucks, were the only equipment available to mix the concrete. There were no mixer trucks available.

From my earlier experience with the dry batch system, I knew that dry batches of concrete would not mix properly in the agitators. We had tried to utilize agitators for two weeks in 1977 to fabricate concrete for non-safety related purposes. At that time laborers in the placement center where the concrete was formed for use in the plant told me that lumps of ice and solids were not mixing into the batch, rendering the batches virtually useless. Ice was used to keep the mixture at the proper temperature. The agitators simply were not able to integrate the ice. This failure properly to integrate the materials in the mixture resulted in the formation of the ice balls. To alleviate this problem, in 1977, Blount had temporarily rented mixer trucks which were adequately able to integrate the materials in the concrete mixture to use instead of the agitators.

The concrete which I had been mixing in the dry batch system in 1977 had not been used for safety-related purposes, and, therefore, I was not required to sign my name to verify the quality of the batches. In June of 1979 when I was asked to employ the back-up mixer to fabricate concrete for the cooling towers, I had to check a box marked "CHECK, IF SAFETY-RELATED CONCRETE" and sign my name. (See Blount Brothers Corp. form attached, and marked "Attachment A")

I told my supervisors that I could not sign the audit form, since I knew from my past experience with the mixer that the concrete produced in the back-up unit would not meet the quality

standards in the safety specifications. My supervisors continued to insist that I mix the dry batches in spite of my explanation concerning the inadequacy of the concrete mixing process. I complained to union representatives about the situation. The union, however, was not able to help me, because I had refused to operate a machine. As a result, Blount supervisors terminated my employment. I later learned that my replacement attempted to mix the concrete in the back-up mixer, only to find that ice balls formed in the mixture, making the concrete unusable for safety purposes.

Blount was under a great deal of pressure from CE supervisory personnel to produce concrete to keep up with the high-paced construction schedule. I knew that CE plant superintendent Sorenson often reprimanded my Blount supervisors for failure to meet CE's desired production levels. CE construction supervisors would visit my Blount supervisors on a weekly basis to complain that the necessary concrete quotas were not being met. I believe Blount was under tremendous pressure from CE to increase the pace of its concrete production. Thus, when the computer-measured mix system was shut down for its calibration check, I think Blount supervisors felt compelled by CE's demand for concrete to try to operate the back-up system.

In my four years as batch plant operator at Byron, I observed other instances in which safety specifications were circumvented. In November of 1975, when I was trained as a batch plant operator, both my supervisor and the experienced batch plant operator who were conducting the training told me that the

aggregate being used in the fabrication of the concrete did not meet the specifications required for concrete utilized in safety-related areas. The concrete was being used in the construction of the containment and turbine buildings. The experienced batch plant operator complained to CE engineers about the poor condition of the aggregate being used. CE did nothing to remedy the problem.

Blount workers and CE personnel were not the only persons who recognized the non-complying condition of aggregate. Sometime in 1976, an Israeli engineer on tour of the Byron construction project questioned me about the pile of aggregate near the batch plant. When I informed him that it was being used to make the concrete used in the containment building, he expressed surprise, and explained that the stone was not clean enough to be used to mix concrete for safety-related purposes.

Finally, in 1978, NRC safety investigators and/or independent testing company inspectors condemned the aggregate pile, prohibiting the use of the stone until it was cleaned to specifications. Large quantities of the aggregate had already been used in the fabrication of safety-related concrete. Neither CE officials nor NRC staff investigators ever took any action that I knew of in regards to the concrete which had already been made with the condemned aggregate. For over two years, aggregate which had not met specifications was used to mix the concrete for the Unit One containment and turbine building. In my estimate, over 100,000 yards of concrete mixed with the non-complying

aggregate was fabricated, and used, with a great deal of the concrete being used in the lower level of the containment structure including the portions built below the ground.

In August, 1982, I was informed by a representative of BPI that NRC I & E reports indicate that a pile of aggregate at Commonwealth Edison's Byron nuclear power plant was condemned in December, 1975, for failure to meet specifications. I was not aware of this particular condemnation. I remain certain that later piles of aggregate used in mixing concrete for use in the Byron containment building failed to meet specifications. The conversation described above with the Israeli engineer concerning the poor quality of the aggregate occurred, to the best of my recollection, in the latter part of 1976, about one year after I had become batch plant operator in November, 1975. The problem of which I was aware with the aggregate, and which is described above in this affidavit, was not rectified until NRC investigators or independent testing company inspectors condemned the pile sometime in 1978. In the meantime, during 1976, 1977 and part of 1978, aggregate not meeting specifications continued to be used in the fabrication of concrete utilized in safety-related areas at Byron.

I believe CE failed to take corrective action, prior to the NRC condemnation of the aggregate pile, because the poor quality of the aggregate was not reflected in any paper work, even though CE knew the aggregate did not meet safety specifications.

In another example of a failure to meet safety specifications, which I witnessed while sitting in my office, Blount Quality Control personnel blatantly lied to NRC investigators. On one

occasion I heard a Blount QC employee tell the NRC that weekly and monthly maintenance checks were being performed. In fact, such inspections were only conducted when machinery happened to break down.

Also, in general, it was apparent to me that the Blount QC staff did not want the batch plant operators and the other workers talking to the NRC investigators. When NRC engineers spoke with Blount QC staff persons in my presence, I knew from the cold glares directed at me that I was not supposed to talk about safety topics being discussed, despite the fact that they often concerned matters about which I was quite familiar. I often sat quietly as the Blount QC people stretched the truth on a variety of quality control practices. I think that Blount supervisors, anxious to meet CE's daily demand quotas, did not feel that strict adherence to quality control procedures was necessary, and thought that strict adherence would interfere with the speed at which the concrete was produced.

Another practice in which I was often involved provided a good illustration of Blount supervisors' lack of regard for safety specifications. Every 10-yard batch of concrete was supposed to be approved by a CE engineer or an independent testing company inspector. CE did not have enough engineers assigned to the project to watch every batch produced. Many times, when a batch was ready to be sent to the placement center, and when the CE engineer was not around, my supervisor would have me add water to the mixed concrete. I was told to add water to

NWA

the mixture, because the extra liquid made the concrete easier to work with. This practice was in violation of safety specifications. Also, my supervisor knew that by the time the batch with the added water reached the placement center, the form of the concrete mixture would appear to meet specifications, as the mixture would harden somewhat from the time it left the batch plant until its receipt at the placement center. Concrete workers at the placement center told me that after batches reached them, they were often directed to add even more water, in further violation of specifications.

The amounts of each material (including water) to be integrated into the concrete mixture utilized for safety purposes was specified in regulations. The addition of water by tampering with these amounts was a clear violation of the regulations. Also, from my experience with concrete mixing, I knew that when too much water was added to concrete the mixture loses its strength. My Blount supervisors knew that the process was in violation of regulations, but since it made the concrete easier to handle, the regulations were ignored.

I was told by a fellow worker, Glenn Garrison, about another significant violation of safety specifications relating to the production of concrete. Garrison, the cement tender (also referred in construction slang as the "pig operator"), informed me that oil was leaking into the concrete mixture from the large blower which he operated. The batches of cement being mixed with the oil were en route to the containment buildings. I shared Garrison's belief that the presence of oil in the mixture presented a safety hazard.

Oil considerably weakens the strength of a concrete mixture, by preventing the concrete from reaching its normal levels of density and hardness. Garrison told me that he had reported the oil leakage to his supervisor, but to my knowledge no action was taken to remedy the matter. Garrison quit his job at Blount shortly after I was fired.

All of the violations of safety specifications which I observed and in which I was asked to participate were overlooked or not discovered by CE inspectors. I believe that the CE supervisors were mainly worried about meeting safety specifications on paper. I further believe, from my experience at the Byron facility, that actual compliance with specified procedures for producing concrete for safety-related use was not nearly as important to CE as pushing Blount supervisors into increasing the speed of concrete fabrication to meet the daily quotas for the construction project.

I have read the above eight (8) page affidavit, and to the best of my knowledge, it is true, accurate, and complete.

Daniel W. Gallagher

SUBSCRIBED AND SWORN TO before me
this 11 day of [illegible], 198[illegible].

Notary Public

BLOUNT BROTHERS CORPORATION

New York Chicago Boston Houston

Montgomery, Ala.

31377

ATTACHMENT A

DELIVER TO:

LOCATION OF PLACEMENT:

BYRON STATION – UNITS 1 & 2
OWNER
Commonwealth Edison Company
Chicago, Illinois

PRESS FIRMLY YOU ARE MAKING 5 COPIES

MONTH DAY YEAR	CONSECUTIVE BATCH NO.	DESIGN MIX CODE NO.	% MOISTURE		CU. YDS. THIS LOAD	CUBIC YARDS ORDERED	CUBIC YARDS DELIVERED INCLUDES THIS LOAD	TRUCK NO.	

BATCH DATA

( ) READY MIXED CONCRETE ( )

X

IF REJECTED GIVE REASONS AND DISPOSITION OF LOAD

TIME EMPTIED _____ A.M. P.M.

RECEIVED BY

X _____

AUTHORIZED SIGNATURE B.B. CORP. FOREMAN

MATERIAL SYMBOLS

AG1 = 57 STONE
AG2 = 67 STONE
AG3 = 467 STONE
AG4 = SAND

CM1 = CEMENT, TYPE II
CM2 = FLY ASH

AD1 = AIR ENT.
AD2 = WATER RED.

WTR = WATER

ICE = ICE

RETURN TO PLANT

RIM KOPY INC. ERIE, PA.