

August 9, 1979

MEMORANDUM FOR: George Gower, Acting Executive Officer for Operations Support, IE

FROM: Charles E. Norelius, Assistant to the Director, RIII

SUBJECT: INVESTIGATION REPORT ON MARBLE HILL CONCRETE REPAIR ALLEGATIONS

As discussed with you, attached is IE Investigation Report Nos. 50-546/79-08 and 50-547/79-08, which deals with allegations concerning concrete repairs at the Marble Hill construction site. Our investigation confirmed that improper repairs had been made to safety-related concrete structures, and appears to indicate that contractor management personnel were knowledgeable of these improper repairs.

The report has not been sent to the licensee as of this date, but likely will be sent within the next day or two. The report is being provided to you for referral to OIA for their coordination with the Department of Justice.

Please let us know if you have any questions regarding this report.

Charles E. Norelius
Assistant to the Director

Attachment:
As stated

cc w/attachment:
R. Fortuna, OIA ✓

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
719 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

Docket No. 50-546
Docket No. 50-547

Public Service of Indiana
ATTN: Dr. James Coughlin
Vice President - Nuclear
1000 East Main Street
Plainfield, IN 46168

Gentlemen:

This refers to the investigation conducted by Messrs. J. E. Foster, F. C. Hawkins, C. C. Williams, J. Hughes, and E. R. Schweibinz of this office on June 22, 25-29, July 7, 11-13, 17-20, 1979, of activities at the Marble Hill construction site, authorized by NRC Construction Permits No. CFP-170 and No. CFP-171, and to the discussion of our findings with members of your staff.

The investigation concerned allegations of improper repair and concealment of honeycombed concrete areas at the Marble Hill site. These allegations were substantiated. The enclosed copy of our investigation report identifies those areas examined during the investigation. Within these areas, the investigation consisted of a selective examination of procedures and representative records, observations, and interviews with present and former site personnel.

The enclosed investigation report does not identify any items of noncompliance. Such items identified during a concurrent inspection of technical aspects of the safety-related concrete repair problems will be set forth in subsequent inspection reports.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed investigation report will be placed in the NRC's Public Document Room, except as follows. If this report contains information that you or your contractors believe to be proprietary, you must apply in writing to this office, within twenty days of your receipt of this letter, to withhold such information from public disclosure. The application must include a full statement of the reasons for which the information is considered proprietary, and should be prepared so that proprietary information identified in the application is contained in an enclosure to the application.

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Public Service of Indiana

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We will gladly discuss any questions you have concerning this investigation.

Sincerely,

James G. Keppler
James G. Keppler
Director

Enclosure: IE Investigation
Reports No. 50-546/79-08
and No. 50-547/79-08

cc w/encl:

R. M. Brown, Construction

Project Superintendent

G. Gower, Acting XOOS

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U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report No. 50-546/79-08; 50-547/79-08

Docket No. 50-546; 50-547

License No. CPPR-170; CPPR-171

Licensee: Public Service of Indiana
1000 East Main Street
Plainfield, IN 46168

Facility Name: Marble Hill, Units 1 and 2

Investigation At: Marble Hill Site and vicinity

Investigation Conducted: June 22, 25-29, July 7, 11-13, 17-20, 1979

Investigator: *J. E. Foster*
J. E. Foster

8/8/79

Inspectors: *F. C. Hawkins*
F. C. Hawkins

8/9/79

C. C. Williams
C. C. Williams

8/9/79

C. Hughes
C. Hughes

8/9/79

E. R. Schweibin
E. R. Schweibin

8/9/79

Reviewed By: *C. E. Norelius*
C. E. Norelius
Assistant to the Director

8/9/79

W. W. Hayes
W. W. Hayes
Chief
Engineering Support Section 1

8/9/79

Investigation Summary

Investigation on June 22, 25-29, July 7, 11-13, 17-20, 1979 (Report No. 50-546/79-08; 50-547/79-08)

Areas Investigated: Special, unannounced investigation into allegations of improper repair of concrete structures and placement of nonconforming concrete areas; review of pertinent records, interviews, inspections of

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construction activities. The investigation involved 220 inspector-hours onsite, by three NRC inspectors and investigators.
Results: Numerous improperly repaired concrete areas were identified. Interviews with site workmen and former employees indicate that contractor personnel, at least to the level of Superintendent, were knowledgeable and may have ordered improper repairs to conceal nonconforming concrete areas. No items of noncompliance are identified within this report. These items will be covered in separate inspection reports.

REASON FOR INVESTIGATION

On June 12, 1979, Mr. Thomas M. Datillo, the attorney representing Save The Valley, an intervenor group, wrote to Mr. Harold Denton, Director of the Office of Nuclear Reactor Regulation, requesting a halt in concrete placement, testing of concrete in place, and a review of quality control records pertaining to concrete at the Marble Hill site. Attached to the letter was a twenty-three page sworn statement from Mr. Charles Edward Cutshall, a former concrete finisher's helper at the site. The statement alleged improper repairs of honeycombed areas in safety-related concrete. Also on June 12, 1979, during an interview of PSI personnel by a Louisville TV station, one page of the aforementioned twenty-three page statement was given to PSI officials, and they were asked to comment on the statement. This was the first time the statement had been made public.

Public Service of Indiana (PSI) notified NRC Region III (RIII) at approximately 3 p.m. on June 12, 1979, that they had been provided with the one page of the Cutshall statement. On June 13, 1979, PSI transmitted a copy of the complete statement which they had obtained. On the basis of the information contained in the statement, an NRC investigation was initiated into the matter.

SUMMARY OF FACTS

Two NRC inspections of concrete activity at the Marble Hill site, conducted prior to receipt of the allegations, indicated problems with placement and repair of concrete at the construction site. Among problems identified was the improper repair of honeycomb areas (see IE Inspection Reports No. 50-546/79-03, and 50-546/79-04). A management meeting with PSI was held on May 15, 1979, to discuss these findings.

Following receipt of the statement of Mr. Charles Edward Cutshall, RIII personnel attempted to contact him to discuss the statement and gather additional details regarding the improperly repaired areas and concerning people who would be knowledgeable of the method of repair of these areas. Initially, RIII personnel were unable to contact Mr. Cutshall directly.

On June 21, 1979, PSI indicated that they had made an investigation on their own to determine whether any concrete patches in the plant had been improperly made, using a sounding method. They advised that their review indicated numerous deficient patches, including some patches made over honeycombed areas. Honeycomb is described as a void (rock pocket) in concrete left due to the failure of the mortar to effectively fill the spaces among coarse aggregate. Proper repair of such honeycombed areas involves the removal of all honeycomb or other unsound material, and performing a concrete patch by a correct procedure, utilizing appropriate material. Surface honeycomb patches can be an indication of internal honeycombing.

On June 22, 1979, RIII personnel visited the Marble Hill site, inspected concrete structures, held discussions with licensee and contract personnel, and requested that no more repairs or chipping be made of concrete patches until the NRC could review the situation at the site. PSI officials agreed to this request.

After several attempts, on June 25, 1979, telephone contact was made with Mr. Charles Cutshall by way of a telephone call from the office of Mr. Thomas Datillo. Mr. Cutshall repeated the majority of the statements made in his twenty-three page affidavit and attempted to describe some of the locations where he believed that improperly repaired concrete existed in the Marble Hill plant. Due to the complexity of the plant, no exact locations could be obtained by telephone. Mr. Cutshall indicated that a number of improper repairs of concrete honeycombed areas had been made at the direction of the finisher superintendent.

RIII personnel then attempted to review the areas described by Mr. Cutshall, and identified several patches which had already been inspected by the licensee at each area. However, it was not possible to determine that these were the patches described by Mr. Cutshall. It was concluded that an adequate review of the areas described could not be made without Mr. Cutshall's physical presence onsite to point out the areas of his concern.

On June 26, 1979, the RIII Director and staff met with PSI officials at the Marble Hill site, and discussed the findings of the investigation at that point. Due to concerns expressed by the RIII staff and the fact that deficient repairs in concrete areas had been identified, NRC representatives requested that PSI stop safety-related concrete work, perform non-destructive examination of various concrete structures, identify and evaluate repaired areas for their adequacy, and review their entire program for concrete activities onsite. PSI officials committed to perform these actions.

On July 1, 1979, direct contact was made with Mr. Charles Edward Cutshall. On July 7, 1979 Mr. Cutshall was brought to the Marble Hill site to tour the plant, accompanied by RIII personnel. During this tour he pointed out 19 separate areas where he believed that improper concrete repairs had been made, and the locations of these areas were noted by RIII personnel. He again repeated his understanding that the finisher superintendent had ordered some cosmetic repairs to improperly consolidated areas so that PSI and the NRC inspectors would not be aware of them.

On July 9, 1979, Mr. Thomas Datillo advised RIII personnel that he had obtained three more statements from former workmen at the site; Mr. Jewel Rogers, a former finisher's helper; Mr. Stanley Mortensen, a former concrete finisher; and Mr. Michael Walston, a former concrete finisher. These statements are attached as Exhibits II, III and IV. Mr. Mortensen was interviewed at his residence and then toured the Marble Hill site, accompanied by RIII personnel. RIII personnel were unable at that time

to substantiate his concerns relative to repair of an expansion joint. However, he advised that he had been ordered to cosmetically patch a honeycombed area in the lower auxiliary building and took RIII personnel to that location. Upon testing the indicated patch, it was found that the patch did cover a small honeycombed area of concrete. Mr. Mortensen repeated the statements contained in his affidavit, indicating that he had been directly ordered to repair this patch by the concrete finisher superintendent.

Interviews were held with individuals "F" and "G" both concrete finisher foremen. Individual "F" stated that he had been ordered, on occasions, to improperly repair some areas but that the individual that had ordered the repairs was no longer on site. He would not identify the individual. Individual "G" said he had not been ordered to repair any deficient concrete area.

Mr. Stephan Gayso, the Finisher Superintendent, was interviewed. He stated that he was not knowledgeable of improper concrete repairs, and had not ordered any finisher foreman or finisher to cosmetically patch unrepaired honeycombed concrete areas. On July 10, 1979, Mr. Gayso and individual "F" provided short written statements to the Newberg Company which indicated that they had not authorized particular individuals (those who had made written statements) to patch or cover up any defective surfaces, honeycomb voids or rock pockets without prior approval from Newberg quality control or PSI representatives.

RIII personnel interviewed a number of Newberg employees, including concrete finishers and finisher's helpers. During these interviews three signed statements were obtained. One of these indicates that the foreman for the finishers crew did not order any of his crew to repair any defective areas and was not knowledgeable of any defective repairs. One of the statements corroborates earlier statements that the Finisher's Superintendent gave the orders to perform these deficient repairs, and that the foremen passed on these orders to the working crews. These statements are included as Exhibits VIII, IX and X.

During the interviews, one finisher expressed a strong opinion that the individuals who had made statements had done so due to personal grudges against the Finisher Superintendent. A portion of this interview was audio tape recorded, and a transcript of the taped portion is attached as Exhibit VII. Statements from various workers indicated that the finisher superintendent was often present on the job site during the period of time when deficient repairs were being made. Also, interviews indicated that workmen only perform work assigned (ordered) to them. This is standard construction site procedure.

Testing of areas described by Mr. Charles Cutshall, Mr. Mortensen and individual "N" indicated that virtually all of these patches were improper. All unsound material had not been removed prior to patching many of the patches, and several were found to have weak areas.

The investigation confirmed that many areas of honeycombed concrete were improperly repaired in that (1) the drypack material was not sound, (2) all honeycomb or unsound materials had not been removed prior to patching, or (3) no effort had been made to remove honeycomb prior to patching. The number of instances of deficient patches is sufficient to conclude that finisher foremen were knowledgeable that such patches were being produced, and ordered this work to be done. If the finisher superintendent were present at the worksite, it is logical to assume that he would also be aware that such work was being performed. As workmen and foremen had no experience in quality control, it is possible that many workmen were not aware that such patching (allowable on routine commercial work) was not acceptable at the Marble Hill site.

No evidence was developed to indicate that PSI management was aware of the deficient repairs. Details as to deficiencies with the PSI Quality Control program will be covered in a separate inspection report.

DETAILS

1. Personnel Contacted

Public Service Indiana

M. Bright, QC Inspector
R. M. Brown, Construction Project Superintendent
J. J. Cook, Senior Staff Construction Engineer-Nuclear
L. A. Crews, Vice President Construction
J. Caughlin, Vice President, Nuclear Services Department
S. K. Farlow, Site Design
F. R. Hodges, QA Manager
W. Minick, QC Inspector
T. L. McLarty, QC Engineer
J. Rutkowski, Manager, Licensing
S. W. Shields, Vice President, Electric System
D. L. Shuter, Lead QC Inspector
W. P. Smith, Construction Field Office Supervisor
W. D. Ward, Construction Manager

Newberg-Marble Hill

J. Ball, Lead QC Engineer
M. P. Cooper, General Superintendent, Construction
F. W. Durocher, Vice President
S. Gayso, Superintendent, Finishers
E. P. Guy, Quality Assurance Supervisor
W. Hamilton, Project Manager
J. Spann, QC Inspector
W. Townsend, Superintendent

Sargent and Lundy

K. Kostal, Senior Structural Project Engineer
A. M. Weiss, Concrete Technologist

U. S. Testing

D. Lanham, Supervisor

Save The Valley

T. Datillo, Attorney
R. Gray, Chairman of the Board

Individuals

C. E. Cutshall, Former Finisher's Helper
S. Mortensen, Former Finisher
J. Rogers, Former Finisher's Helper
M. L. Walston, Former Finisher
Individuals "A through "O"

2. Introduction

The Marble Hill Nuclear Power Plant, Units 1 and 2, licensed to Public Service of Indiana is under construction at a site approximately 10 miles south of Madison, Indiana. Sargent and Lundy is the Architect Engineering Company for the Plant. The facility is designed to utilize a pressurized water reactor supplied by Westinghouse, and to generate 1150 megawatts of electricity per unit. Unit 1 is approximately 20% complete and Unit 2 is approximately 6% complete at this time.

Newberg-Marble Hill (Newberg), a joint venture of Gust K. Newberg Construction Company, and Gust K. Newberg, Incorporated, is the prime concrete contractor for the facility, providing both safety-related (containment, auxiliary, and fuel handling buildings) and non safety-related (turbine, administrative buildings and cooling towers) concrete structures.

3. Scope

This investigation focused on allegations received from Charles Edward Cutshall regarding improper repair of concrete surfaces at the Marble Hill plant and on whether Newberg-Marble Hill management personnel were knowledgeable concerning or had ordered these improper repairs. This report will not deal with technical questions regarding concrete patches or related regulatory matters. Other inspection reports will cover those quality control and engineering problems observed at the site, and related noncompliance items.

4. Technical Background

Honeycomb areas in concrete are voids (rock pockets) left in concrete due to failure of the mortar to effectively fill the spaces among coarse aggregate. Honeycombed areas can be caused by several factors such as improper placement of concrete (resulting in separation of the coarser aggregates), lack of sufficient vibration during placement, improper concrete mix design, inadequate concrete form design or preparation, and configuration of reinforcing steel within the concrete forms. Some honeycombing is to be expected as a normal occurrence, especially in nuclear power plant construction where walls and slabs are heavily reinforced.

Honeycombed areas on the surface of a wall or slab are identifiable when the concrete placement forms are removed, and appear as rocky areas or open pockets. Generally, the extent of such honeycombing cannot be determined visually until all of the unsound material has been removed by chipping. Surface honeycombing can be an indication that further internal voids exist.

At the Marble Hill site, honeycomb was classified as being a "minor" honeycomb (less than one half of a reinforcement bar exposed after unsound material was removed) or a "major" honeycomb (half or more of a reinforcement bar exposed when the unsound material was removed).

Upon removal of concrete forms, the area was to be inspected, and any honeycombed areas (or suspected areas) were to be identified and tagged with a blue "temporary hold" tag. The unsound material was to be removed by chipping, and if classed as a minor honeycomb, patched without further quality control inspection. If the area was classed as a major honeycomb, a nonconformance report (NCR) was to be generated, followed by PSI quality control inspection of the final condition of the area before patching. The resulting nonconformance report would be processed in the normal manner, including a review by the Architect-Engineering firm for the plant. Such nonconformance reports are routinely reviewed during NRC inspections, to determine if proper engineering evaluations and corrective actions are being made of nonconforming items.

When properly identified, unsound materials removed, and patches properly placed, surface honeycombs do not reduce the structural strength of a concrete structure. Similarly, internal voids, when identified and located, can be repaired or evaluated through engineering analysis to determine if the structure in which they are located has been significantly weakened.

5. Receipt of Allegations

On June 12, 1979, at approximately 3:15 p.m., RIII was notified by PSI officials that during an "on camera" interview by a Louisville TV station, a PSI official was given one page of a twenty-three page sworn statement and asked if the allegation contained in the statement was true. The page shown to the PSI individual indicated that improper and cosmetic repairs had been made to honeycomb areas in the plant. PSI advised they did not have the entire statement, but were trying to obtain a copy.

On July 13, 1979, at approximately 3:00 p.m., PSI transmitted to RIII a barely readable telecopy of the sworn statement made by Charles Edward Cutshall. RIII personnel requested a clear copy.

On July 14, 1979, a clear copy of the statement was received at Region III. A copy of the sworn statement of Charles Edward Cutshall dated May 8, 1979 is attached as Exhibit I. During later conversation

with Mr. Thomas M. Datillo, Attorney for "Save the Valley," he indicated that Mr. Cutshall had required a thirty-day period between production of the statement and release of the statement to the public, and that he had complied with this requirement.

6. Attempts to Contact Charles Edward Cutshall

On June 14, 1979, RIII personnel attempted to contact Charles Cutshall through contact with relatives, and were unable to obtain a current telephone number. On June 15, 1979, Mr. Thomas Datillo called RIII and advised that he was acting as attorney for Mr. Cutshall. He suggested that RIII bring Mr. Cutshall back to the Marble Hill site from his present residence in Texas.

During the period of June 18 through 20, several telephone calls were made to Mr. Datillo and to PSI, in an attempt to make arrangements for Mr. Charles Cutshall to visit the site accompanied by RIII personnel. This attempt to arrange a site visit was complicated by Mr. Datillo's position that Mr. Cutshall should be accompanied by himself and by an engineer selected by Save the Valley. No direct contact with Mr. Cutshall was allowed by Mr. Datillo during this period.

7. PSI Actions

On June 21, 1979, RIII personnel contacted PSI QC personnel at the Marble Hill site, and inquired as to their actions following receipt of Mr. Cutshall's allegations. PSI personnel advised that they had begun their review of the allegations by testing patches via a sounding method (beating on the patches with a hammer and listening for the sound of reverberation). They advised that their review indicated that there were numerous improperly prepared patches throughout the auxiliary building, and that in some cases it appeared cosmetic repairs had been made to honeycombed areas which had not been removed.

8. Initial Site Visit

On June 22, 1979, RIII representatives visited the Marble Hill site, held discussions with licensee and contractor personnel, and inspected areas which had been reviewed by the licensee and his contractors. During this review it was noted that at least five areas had been found where cosmetic repairs had been made over obviously honeycombed areas in the concrete surfaces (unsound material had not been removed). The licensee advised that Newberg had been given a Stop Work Order prohibiting them from placing any further concrete patches until the investigation process had been completed. Licensee personnel stated that, on the basis of these findings they had held discussions with the contractor and identified what they considered to be deficiencies in the contractor's procedure and in the PSI overview of the

concrete placement and repair program. They advised that they had initiated changes to correct these procedures and felt confident that work could proceed in safety-related areas. A press conference was held on June 22, 1979, and the press was advised of the NRC findings at that time.

9. Telephone Contact With Charles Cutshall

On June 25, 1979, RIII persons visited the Office of Mr. Thomas Datillo, and participated in a conference telephone call with Mr. Charles Cutshall. This was the first direct contact with Mr. Cutshall. Mr. Cutshall stated that he was aware of a number of areas in the Marble Hill plant where improper repairs had been made to concrete surfaces. He tried to describe the exact location of a number of these patches to RIII personnel, with little success. Due to the complexity of the plant and the relatively small size of the patches it was uncertain exactly which area, or which wall of the plant Mr. Cutshall was describing.

Mr. Cutshall repeated the statements made in his sworn statement, and indicated that the concrete finisher's foremen were aware of the deficient patches and that the concrete finisher superintendent had ordered these patches to be made. He stated he had not personally heard the concrete superintendent give the order for deficient patches to be made, but stated that it was common knowledge among finishers that the foremen had received such instructions.

10. Contact With Former Finisher Foreman

On June 26, 1979, Mr. Jack Ratkowski of PSI advised that he had participated the previous day in a call-in style radio show, and during this program an individual had called in and discussed concerns relative to the Marble Hill site. He indicated that this individual had left his name and requested someone from the NRC contact him. On the evening of June 26, 1979, the RIII investigator contacted this individual, Individual "A". Individual "A" stated that he was not the individual who had contacted the radio talk show. However, he indicated that he had been foreman of a finisher crew at the Marble Hill site, and some of the allegations made by Charles Cutshall were true, although Charles Cutshall had not worked on the containment building. Individual "A" stated that the Finisher Superintendent for Newberg had told finishers not to talk to the NRC and to busy themselves doing some other task if a PSI individual happened to come by while they were performing an improper patch.

11. Site Interviews

On June 28 and 29, interviews were held with Newberg personnel, Individuals "B", "C", "D" and "E". None of the individuals interviewed made any statement that Newberg management was aware of the practice

of deficient patching or that any Newberg management official had given an order for these patches to be made. They indicated various problems concerning the speed that work was being performed, storage of cement material which caused low strength drypacking (used for patching) and noted the fact that Mr. Charles Cutshall had not liked the Finisher Superintendent.

12. Site Tour With Charles Cutshall

On July 1, 1979, direct telephone contact was made with Mr. Charles Cutshall, and during subsequent contacts, he agreed to come to the Marble Hill site. Arrangements were made to transport him to the site.

On July 7, 1979 Mr. Cutshall, accompanied by three NRC personnel, toured the Marble Hill site and pointed out specific areas of his concern. Mr. Cutshall directed NRC personnel to nineteen separate areas where he believed that improper concrete patches had been placed, and the exact locations of these patches were noted during the site tour. Mr. Cutshall also pointed out several areas where he felt that construction was deficient due to water seepage, and NRC inspection personnel advised that the amount of water seepage observed was normal, considering the height of the water table and the status of construction at that point.

Mr. Cutshall indicated that several patches which he had pointed out had been made under the direct orders of the Newberg concrete Finisher Superintendent.

13. Additional Statements

On July 7 and July 8, 1979, Mr. Thomas Datillo obtained statements by three other individuals - Mr. Jewel Rogers, a former finisher's helper; Mr. Michael L. Waltson, a former concrete finisher; and Mr. Stanley J. Mortensen, a former concrete finisher. These sworn statements were subsequently provided to RIII personnel on July 29, 1979. Copies of these statements are attached as Exhibits II, III, and IV.

14. Site Review and Investigation

On July 11 through July 13, Region III personnel visited the Marble Hill site, interviewed licensee and contractor personnel, and reviewed site documents. Contractor personnel advised that the first structural concrete pour for the plant had been performed in February 1978, and that initially patching was done by the finishers without any criteria for production or inspection of the patch, and no checks had ever been made of completed patches. It was additionally stated that such patches were not a structural concern but pertained only to fire protection. Newberg personnel noted that no procedure had been

written on how to perform a patch and no procedure had additionally been written for the drypack activity itself. They advised that on May 1, 1978, procedure (QAPN-10) had been rewritten concerning identification and approval of honeycombed areas for patching which provided for notification of PSI officials when a major honeycomb, that which exposed more than half of one reinforcement bar, was detected. Newberg personnel advised that the finisher foreman would determine when the chipping was satisfactory on a minor honeycomb, and the amount of chipping was not spelled out in the procedure, but left to the foreman's discretion.

Contractor personnel advised that there had been occasions, during inclement weather, especially rain, when finisher crews and form stripping crews had been sent into the auxiliary building and told to simply remove forms from concrete and place patches. Newberg personnel stated this was done so that they would not have to send these individuals home without work on those days when other work was not available. They advised that they suspected that some of the deficient patches had been made during some of those time periods when workers were given general instructions to go down into the plant and patch honeycombed areas. They stated that they felt, because of their relative inexperience with such nuclear power plant work, workmen patched over honeycombed areas without benefit of quality control inspection.

On July 12, 1979, Mr. William Townsend, Superintendent for Newberg, was interviewed by RIII personnel. He stated that no one in Newberg had ever instructed any of their workers to do anything improper, although honeycombed cement was a constant and aggravating problem at the work site. He advised that sending crews down into the auxiliary building so as to keep them working on rainy days was a standard procedure in construction and that during these occasions workers might do work and not know that it was wrong. He stated that he supervised the work of Mr. Stephen Gayso and he had not dealt with any of the finishers himself. Mr. Townsend advised that he felt the problem at the plant had resulted from lack of knowledge on the part of the finishers involved with the construction work, and that these individuals had not realized that cosmetically covering a honeycomb patch would not be an acceptable procedure at this type of plant.

On July 12, 1979, Mr. John Ball, Lead QC Engineer for Newberg, was interviewed by RIII personnel. He stated that he had not been knowledgeable of any deficient concrete areas being repaired and had been totally surprised when the allegations had been made public. He stated that the Finisher Superintendent and the other finishers had been very good at reporting honeycomb when observed in the field, and the QC Department had been advised of such areas daily. He stated he was aware that personnel were sent in to the auxiliary building on rainy days, and advised that he had often been called to

inspect honeycombed areas found during those periods. Mr. Ball advised that he had not ordered any cosmetic coverup of honeycombed areas, and felt that the PSI quality control inspector had been very strict in his review of honeycombed concrete areas. He provided his opinion that Newberg did not have a sufficient number of quality control inspectors to adequately control the job (be present when the forms were removed from concrete surfaces) so as to identify honeycombed areas before the finishing crews were advised to patch those areas. Mr. Ball stated that he was aware that many of the newly identified improperly repaired areas were not identified on nonconformance reports and again stated his feeling that this was because the workmen had not realized that they were cosmetically covering a nonconforming condition.

On July 12, 1979, Individual "H", QC inspector for Newberg was interviewed. He made the same statements as Mr. Ball had made relative to the lack of adequate QC coverage and stated his opinion that the workmen who had made the deficient patches had not been aware that this was not an acceptable practice. Individual "H" denied any knowledge of such deficient patches.

Individual "I" QC inspector for PSI, was interviewed on July 12, 1979. Individual "I" was the individual who had primary responsibility for inspection and review of concrete patches in the auxiliary building, where the majority of deficient patches has been uncovered. Individual "I" indicated that he had not been knowledgeable of honeycomb concrete areas being cosmetically repaired and described the procedure whereby PSI quality control would be involved in honeycomb repair. The procedure for a honeycomb repair provides that a minor honeycomb, one which does not expose more than half of the reinforcement bar, is simply chipped back to a sound surface and patched by the contractor, without notification to PSI quality control personnel. In the case where a honeycombed area is chipped back, and reveals more than half of a reinforcement bar, the procedure calls for notification of PSI quality control to review the situation, and generation of a nonconformance report documenting the situation. Individual "I" stated that under these conditions, he would not have been advised when the craftsmen had covered over a honeycombed area without review by Newberg quality control or generation of a nonconformance report. He noted that Newberg had recently fired some people in the placement crews who had been responsible for improper vibration of concrete during placement. He stated he felt that the contractor was trying to produce better work and had recognized a problem with honeycomb areas in the past. Individual "I" stated that he had not recognized the problem of storage of cement materials in barrels, which allowed them to absorb water and become less reactive, resulting in weak dry patches.

15. Review of Signed Statements

On July 10, 1979, Mr. Stephen Gayco and Individual "T" both made signed statements to Newberg Marble Mill management. During their

interviews, noted below, these statements were reviewed with them. From a review of the statements, whose wording is somewhat unclear, it appears that the statements indicate that in some cases repairs were made of deficient areas and these repairs were made with the knowledge of either PSI management, Newberg QC, or Newberg supervision. Mr. Gayso indicated that the wording in his statement was not meant to indicate this, but Individual "F" indicated that this was a correct interpretation of the statement that he had made. Copies of the two statements are attached as Exhibits V and VI.

16. Interview With Finisher Foreman

On July 12, 1979, Individual "F", Foreman for one of the two present finisher crews, was interviewed. Individual "F" stated that if a honeycombed area was not tagged with a quality control tag, the workmen would assume that the area had been cleared for them to patch. He advised that four or five men from his crew had done the majority of patches, and that there was a problem getting qualified workers on the site. Individual "F" stated that he felt that Mr. Stephan Gayso and he were being "set up", by individuals who dislike them, and that some of the areas that had been discovered might have been purposely repaired improperly.

Individual "F" stated that he had heard that an individual had been ordered to come behind the concrete form strippers and patch honeycomb areas before inspectors could observe the concrete surfaces. Individual "F" would not name the individual who had given these orders, but indicated this individual was no longer on site and that the orders had come from "high up in Newberg". Individual "F" indicated that most of his information was hearsay, and declined further elaboration.

17. Interview With Mr. Stephan Gayso

Mr. Stephan Gayso, Superintendent for the Finishers, was interviewed on July 12, 1979. He stated that he had not ordered any personnel to have the crews patch areas where honeycomb had not been removed back to solid surfaces. He indicated that on occasion, such as during inclement weather, he had ordered the foremen to take their crews and patch areas. He stated that these instructions had not meant for craftsmen to patch honeycombed areas which had not been properly repaired. Mr. Gayso stated that neither Newberg quality control nor PSI personnel would approve of patching of areas where honeycomb was not removed, if they were knowledgeable of such an area.

18. Interviews With Finishers

Several further interviews were held with finishers. These finishers did not indicate that they had been ordered to perform deficient patches. During these interviews, finishers and finisher's helpers stated that they did not do any work on site unless they were specifi-

cally ordered to do so, and this is common practice at all construction sites. They further stated that the foreman passes on the orders which he receives from the superintendent to craftmen.

On July 18, 1979, a finisher, Individual "J", requested that his interview be tape recorded, as he felt that some of the statements being received by the press and the NRC were incorrect, and that there was a directed program to discredit Mr. Gayso and the various foremen on the job. A typed transcript of the recorded interview is included as Exhibit VII. In general, Individual "E" stated that each of the individuals who had made statements had some personal reason to dislike either Mr. Stephan Gayso or the Newberg company. He indicated that Mr. Gayso had been hard on workers who had not done their share of the work, and had fired a number of workers. He stated that he felt that some of these workers were trying to have Mr. Gayso dismissed through their statements by way of revenge for their treatment.

19. Interview With Mr. Stanley Mortensen

Mr. Stanley Mortensen, a former finisher at the Marble Hill plant, was interviewed on July 18, 1979, at his residence. Mr. Mortensen indicated that Charles Cutshall and he had worked together closely at the plant, as a team, and that Charles Cutshall had asked if he would make a statement. Mr. Mortensen described several areas where he believed there were improper patches and discussed with RIII personnel his concern relative to a concrete expansion joint on the exterior of containment building No. 1. In addition, several problems pertaining to union matters were discussed. On the evening of July 19, 1979, RIII personnel accompanied Mr. Mortensen to the Marble Hill construction site. Mr. Mortensen and the RIII personnel toured the Unit 1 containment building and located the expansion joint (which was mentioned in his statement) on the outside wall. The drawings for the expansion joint had been procured by RIII personnel earlier in the day and had indicated no problems in this particular area. Mr. Mortensen was not able to describe the exact condition that he felt had occurred there, and this situation is still under review. It was noted that the joint was a non safety-related item itself.

Mr. Mortensen directed RIII personnel to an area in the auxiliary building wall, against the turbine building, and took them directly to a small patch near the floor level which he indicated had been improperly made, as the honeycomb material had not been fully removed. He stated that he had been personally ordered by Mr. Stephan Gayso to patch this area before all the unsound material had been removed. RIII personnel struck this particular patch, and sections of the patch fell out revealing a honeycomb surface.

20. Interview of Concrete Finisher

On July 19, 1979, Individual "K", a concrete finisher, was interviewed by RIII personnel. He stated that he himself had done very little patching at the plant, as he had advised Mr. Gayso that he was not qualified to do this work. He stated he had been told that Individual "L" had been asked just the previous day to cover up a patch of honeycomb concrete on the turbine building. He stated that Individual "M", a foreman on one of the production crews had allegedly asked Individual "L" to perform this work. He also noted that just the previous day while working on turbine building No. 2, he had been provided with "dead" cement. This "dead" cement had been improperly stored in a fifty-five gallon drum on turbine building No. 2. Individual "K" stated that it was a possibility that a number of the production or stripping crews could possibly have patched some of the deficient areas discovered, as it would have been relatively easy for them to have procured the cement mixture and troweled it on so the honeycombed areas would not be visible. Individual "K" provided RIII personnel with a signed statement concerning the interview which is included as Exhibit VIII.

21. Interview With Finisher Foreman

On July 17, 1979 Individual "G" was interviewed. He stated that he was a foreman for one of the two remaining crews of finishers and that none of his crew members had patched areas not previously tagged and identified. He stated that he had been "chewed out" for talking with an NRC inspector in March 1979. Individual "G" provided RIII personnel with a signed statement concerning the interview which is attached as Exhibit IX.

22. Interview of Finisher Union Steward

On July 18, 1979 Individual "N", the Union Steward for the finishers at Marble Hill site was interviewed by RIII personnel. Individual "N" stated that members of the finisher's crews had been ordered by the Newberg concrete finisher superintendent to patch areas where honeycomb had not been fully removed from concrete surfaces. Individual "N" provided RIII personnel with a signed statement concerning this interview which attached as Exhibit X.

Individual "N" was asked to point out some of the improperly repaired areas to RIII personnel. Two areas, one on the auxiliary building and one on the turbine building were pointed out. The location on the auxiliary building was tested by striking with a piece of reinforcement bar, and the surface broke off revealing a section of honeycombed concrete beneath. The location on the turbine building was later tested by contractor personnel, witnessed by PSI and NRC personnel. A honeycombed area was exposed when the cosmetic patching material was removed.

23. Examination of Indicated Areas

The areas indicated by Charles Cutshall and Individual "X" were all noted as to location, and PSI personnel were advised that RIII representatives wished to observe destructive examination of these locations, which totaled 21 separate locations. Of these 21 locations all of the areas with the exception of one proved to be either made of deficient material (the dry packing was not solid), made on areas where all the honeycomb or other materials had not been sufficiently chipped back to a sound surface, or areas where there was no evidence that the honeycomb had been chipped back at all. The condition in these areas appears to substantiate the comments made by the individuals who directed NRC personnel to these locations.

24. Telephone Contact With Finisher Union Business Agent

On July 24, 1979, Individual "O", the Business Agent for the finisher's union was contacted by the RIII investigator. This contact was made because an individual identifying himself as the Business Agent had contacted the RIII office on the previous evening, indicating that he wished to be contacted.

Individual "O" stated that he had not contacted the RIII office and he did not know who had left his name and telephone number. He stated that he had worked as a foreman at the Marble Hill site and was aware that the Finisher Superintendent had ordered some repairs be made where honeycomb had not properly repaired. He stated that he had never been personally ordered to repair such area cosmetically. He said the majority of the workmen at the site had never worked at a nuclear power plant before and might well have made cosmetic patches on honeycombed areas without realizing that this was contrary to the quality control procedures for nuclear power plants.

25. Discussions With PSI Officials

Discussion with PSI officials concerning their investigation of the allegations indicated that they had held initial interviews with the two foremen of the concrete finisher crews onsite, and had made tape recordings of these interviews. PSI officials stated that they had not taken further investigative action, but had deferred to the NRC to perform this function.

NRC Region III personnel requested to review the tape interviews of the two concrete finisher foremen and were allowed to listen to these tapes on site. The interviews indicated site work was acceptable.

26. Contact with Mr. Jewel Rogers

Mr. Jewel Rogers was contacted by RIII personnel on August 4, 1979. He stated that he believed that he had been laid off from work at

Marble Hill due to his asking about the occurrence and repair of honeycombed areas. Mr. Rogers indicated that he had been present when the Finisher Superintendent had ordered cosmetic repairs to honeycombed areas.

Mr. Rogers stated that drypack materials had been mixed in numerous ways in attempts to find a suitable mixture, and that "dead" cement (unreactive due to hydration) had often been utilized for patching.

He indicated that he knew that one wall and one column in the auxiliary building were poured with grout (no aggregate), but did not know if this was improper. RIII personnel were aware that a nonconformance report was issued for a wall poured with grout. Site procedures allow the use of grout when reinforcement bar congestion or other features make honeycombing likely, and the change has been approved. If the grout meets the strength requirements of the wall or column, there is no reduction in the strength of the structure.

27. Contact with Mr. Michael Walston

Mr. Michael Walston was contacted on August 4, 1979. Mr. Walston indicated that he had been a member of Individual "F's" crew, and performed the majority of his work on the cooling tower areas, with some work in the auxiliary and turbine buildings.

He stated that his foreman ordered he and others to patch over small honeycombs in a small room in the auxiliary building, and the Finisher Superintendent observed this work and made no comment.

He indicated that he had seen concrete dropped more than thirty feet, utilizing a concrete tube, or "sock." Mr. Walston indicated that the end of the tube would be a foot or two above the surface of the pour. This is an acceptable practice.

28. Contact with Individual "G"

Individual "G" was re-contacted on August 6, 1979. Discussion with Mr. Mortensen (see Paragraph 19) indicated that Individual "G" was present during work on the expansion joint in question.

Individual "G" stated that Newberg and PSI quality control personnel had observed work on the expansion joint, and he felt the work was proper. He stated that Newberg personnel had originally wanted to pour an adjacent floor immediately after drypatching and sealing the joint, but had delayed the pour after discussion of the matter. Individual "G" indicated that pouring of the adjacent floor prior to the set-up of the drypatching of the expansion joint would have been improper, but since the pour was delayed, he felt the work was acceptable.

Attachments: Exhibits I through X

SWORN STATEMENT

OF

CHARLES EDWARD CUTSHALL

DATE: May 8, 1979.
PLACE: Law office of Thomas M. Dattilo, Madison, Indiana.
TIME: 4:30 P.M.
PRESENT: Thomas M. Dattilo, Attorney for Save The Valley.
Mr. Robert Gray, Chairman of Board of Directors,
Save The Valley.
Mr. Paul Richard Hill, accompanying Charles Edward
Cutshall.
Mr. Charles Edward Cutshall, the witness.
Mrs. Patricia S. Terline, the reporter.

The witness, Charles Edward Cutshall, having been duly sworn by the reporter to tell the truth, the whole truth and nothing but the truth, gave the following statement, to-wit:

Dupe of 8011260429

SHORTHAND REPORTER
RT. 6, BOX 2A
MADISON, INDIANA 47202

EXHIBIT 1
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QUESTIONS BY MR. ROBERT GRAY:

MR. GRAY: This is Bob Gray, and we're going to talk briefly to Charles Cutshall; and we understand he's employed at the Marble Hill construction site.

Q. Might I ask your full name, Mr. Cutshall; what you do for a living; your marital status, and your age, please?

A. My name is Charles Edward Cutshall; I am a laborer for Newberg Construction Company; my age is 22.

Q. Are you married, sir?

A. I am single.

Q. Could you tell us briefly what you do at the Newberg construction site at Marble Hill; just tell us briefly what you do there and how long you've been employed with them?

A. I am a concrete finisher's helper, a laborer. I help concrete finishers by hauling their necessary materials to them and building their scaffolds and just general handyman for them.

Q. How long have you been employed in this position?

A. Two (2) months.

Q. Where were you employed before this?

A. I was employed by Wackenhut Security for F.S.I.

Q. On the Marble Hill site?

A. On the Marble Hill construction site.

Q. And how long were you employed in that capacity, then, Mr. Cutshall?

1
2 A. I was employed from June - I mean January of '79 un-
3 til my employment as a laborer.

4 Q. Okay. In pre-conversation you indicated that you
5 were going to leave this type of employment as a
6 cement finisher and go somewhere else?

7 A. Yes sir. I'm going to stay on as a laborer, not for
8 the Newberg Company. I am moving to Texas.

9 Q. Can you tell us, Mr. Cutshall, then essentially,
10 why you're here? Just make it informal and tell us
11 what you know about cement, and just take off and
12 do your own thing as you youngsters say.

13 A. Okay. I live in the area of the Marble Hill con-
14 struction site. I live -

15 Q. (Interrupting) Can you be specific where?

16 A. Approximately 5 miles southeast of Austin, Indiana.

17 Q. Okay, go ahead. That would be in Scott County?

18 A. Scott County.

19 Q. Go ahead.

20 A. I've been around concrete work all my life; my
21 father's been a finisher for close to 50 years.
22 I'm familiar with concrete work.

23 Q. Have you worked previously with your Dad, in con-
24 crete?

25 A. Yes sir.

26 Q. What time frames; like how long?

27 A. Just small jobs - like sidewalks and things,
28 for instance.

Go ahead, please.

Q.

A.

I'm concerned about the conditions of the concrete and things I have seen on the Marble Hill construction site, pertaining to honeycomb patches.

Q.

Please explain each now. Honeycomb is what in cement?

A.

Honeycomb patches are air pockets that form long forms, when the concrete forms, that leave air pockets in the concrete where you can - the material's real loose and just falls out.

Q.

You mean more narrow perhaps; less concrete in thickness, or what happens with a honeycomb?

A.

If a form is, say for instance, four (4) feet thick - or the concrete would be ^afour (4) feet thick wall and has a honeycomb on the side, it might go in as much as two (2) or three (3) feet into it and have the air pocket to where the concrete is loose. You can just beat it out with a hammer, and in some cases it'll fall out on its own - just breaking it with your hand.

Q.

Thus leaving it much more narrow than the specifications would call for?

A.

Yes sir.

Q.

Okay, and you've seen this at Marble Hill?

A.

Yes sir. It is one of my jobs to patch these -- to supply materials for the finishers to patch these areas.

Exhibit I

page 4 of 23

Q. Okay, what structures have you been working on down there?

A. Steam tunnels, just... (pauses)

Q. Containment building? Have you ever been on the containment?

A. Containment side of the containment -- inside of the containment.

Q. The containment room itself?

A. Yes sir.

Q. Both inside and outside?

A. Yes sir.

Q. And you've seen honeycombs in the containment structure, itself?

A. Yes sir.

Q. As I understand then, it's part of your job to go around and patch these honeycombs as they occur?

A. It is my job to supply the materials for the finishers to patch.

Q. To do this?

A. Yes sir.

Q. I see. Okay, what was the next item, beside honeycombs, that you talked about?

A. In one steam tunnel, along the -- where the wall meets the floor on the perpendicular corners, I've seen water leaking through these areas at a pretty fast rate. I'd say approximately anywhere from five (5) to twenty (20) gallons an hour; and water

comes from the lower levels and outside levels, outside of the walls, just where the water's backed up, and places I don't even know.

Q. Explain the steam tunnel; what do you know about that?

A. Well, all I know on the steam tunnel is that that's where the excess steam, and the steam after it's run through the turbines, follows these steam tunnels to where they're released through the cooling bins.

Q. Okay, what -- have you observed why this is so? Why is it leaking through from ground water; or whatever?

A. The -- just poor concrete work, just poor forms.

Q. Like poor forming that causes the seam not to be sealed, or what? What exactly?

A. Just where the air pockets will run all the way through to where the water will be on these seams, in corners.

Q. Would this have to do with the honeycomb situation that you talked about?

A. Yes sir, more than -- it's my idea that there's honeycombs on in the wall to where the water can run on through. There's -- the water has to be flowing from someplace to be coming out of there, and I'm not sure where it's coming from; but it is coming through.

Exhibit I
page 6 of 23

Q. What other cement defects, besides honeycombing, do

you know about; and have you seen it at Marble Hill?

A.

On patches, I have seen five (5) cases within the last two (2) weeks where the supervision -- Newberg's supervision, their supervisor or superintendent, and other P.S.I. officials will say patch them before the inspectors can come by on patches that should have been air-hammered out and -

C.

(Interrupting) Does this go back to the honeycomb situation you talked about?

A.

Yes sir.

Q.

Okay, you're talking now about a patching situation?

A.

Yes sir. Well, you have to patch the honeycombs.

Q.

And this then was 'patch it before the NRC people could see it', did you say?

A.

Yes sir, on numerous counts. NRC is not there all the time and they cannot keep up with what's going on.

Q.

Is it supposed to be the procedure that the NRC see all honeycombs that appear, or what?

A.

No sir; it's ^{the} procedure for Quality Control, or Q.A., inspectors to see.

Q.

That's Newberg inspectors?

A.

Newberg inspectors, to patch these -- to see these areas, and they put a tag on it; and that's where I was explaining to you, earlier.

Q.

What kind of tag; what does it look like?

A.

Non -- not serviceable, poor material tags where

Exhibit I

page 7 of 23

they have to -- after they put a tag on a honeycomb that hasn't been beat out, or air-hammered out, they have to air-hammer it out; and then the inspector has to come and look at it before they patch it, to make sure it's done right. And on the occasions I was talking about, the supervisors will have them cover up just the outside and not worry about the inside of the patches. Before the inspectors can get around, they'll have them just more or less rack over, cover up, the areas before the inspector can see it.

Q. So that somebody could understand, would it be fair to equate this with like plastering over an area rather than filling it up completely?

A. Yes sir, that would be a good way to put it.

Q. Thus leaving --

A. Areas in-between.

Q. -- an air bubble?

A. Right.

Q. Inside the -- although it would look solid?

A. Right. It'll just have an inch or so outer covering where they've slapped a patch on this honeycomb, and just made it look good from the outside. You can't tell the difference until you get in there and start beating it out.

Q. You said two or three times about beating it out; how do you do that?

1
2 A. With an air hammer, that's what I meant; pneumatic
3 air hammers. They're just jack hammers is what they
4 are, with chisel bits.

5 Q. You mentioned something about the reinforcement and
6 the fact that the concrete sometimes doesn't shake
7 down through. Would you explain that situation?

8 A. Well, the reinforcement rod is placed close together
9 in areas, to where the concrete cannot get in-between
10 the reinforcement rod and the forms, to where it
11 doesn't fill in the forms completely and leaves patch
12 holes in it and honeycomb holes. It's not vibrated
13 down right and it's poor concrete.

14 Q. Poor concrete?

15 A. That's what it would have to be. It'd be too rocky
16 in places.

17 Q. In other words, the mix is wrong or something?

18 - A. Right. When they start pouring the concrete, they'll
19 have a real high rock content in it, right at the
20 beginning, and then it'll come out to the right
21 mixture after the beginning; but they'll pour this
22 on in the beginning of the forms to start out with.

23 Q. Who's responsible for seeing that this is not done --
24 or to see that it's done properly; and evidently
25 it's not then. Who's responsible?

26 A. I would say the concrete superintendent, the finish-
27 er superintendent, and the concrete pouring crews
28 foremans and superintendent.

1 Q. Are they supposed to be there when all concrete is
2 poured?

3 A. They are; they're in pouring the concrete, so they're
4 there. See, you -- when they pour concrete, you
5 have pneumatic vibrators, electric vibrators, that
6 vibrate the concrete on down into these, or into
7 the honeycomb -- I mean into the rebar; and that's
8 the reason for the vibrations, so you won't have
9 honeycomb. But they're not doing it correctly, or
10 the rebar's too close to permit the concrete to
11 fill in these areas.

12 Q. Please explain that?

13 A. Steel rebar is just reinforcement steel that's in
14 concrete, so it can hold a heavier stress and --
15 well that would just be the main problem for them --
16 heavier stress.

17 Q. Have you known any occasions when the shakedown
18 mechanism wasn't working at all?

19 A. I cannot honestly say that I've never seen them not
20 vibrate concrete; they've always vibrated them, but
21 they're not doing it right.

22 Q. Well, not doing it right is fairly general. Can you
23 be more specific? Like do you know why it's not
24 working properly?

25 A. They're not letting the concrete vibrate down into
26 the places where the honeycomb de-
27 velopes, and that's what causes the honeycomb.
28

They're... (pauses)

A matter of time?

Yes, they're pushing it and they're trying to make it as fast as possible.

In other words, if they'd let it vibrate longer it wouldn't develop honeycombs?

In my opinion, yes sir.

Okay. You mentioned the possibility that an NRC inspector had seen this crack situation at one of the tunnels?

I was in a steam tunnel working with finishers that were patching a steam tunnel, and an NRC inspector came to the area. Now, I cannot say that he didn't write something down, but he, in my opinion, never took notice of the situation - of the cracks in the seams or the water coming through.

How often does an NRC inspector come to inspect the cement situation?

I've seen, in my period of working there close to two (2) months, I've seen him I'd say three (3) times.

Three (3) times?

Yes sir.

How much cement would have been poured then in this period, in your judgment; could you tell?

Hundreds and thousands of yards of concrete.

Is it a fair statement then to say that the quality,

the Q.A. as you referred to, has to be done by Newberg, and the NRC really has no effective way. Is that fair to say?

A. That would be fair, because NRC cannot be on the site, or they're not on the site; I guess they could be on the site all the time, but they're not on the site all the time; and when they are there my supervisors, and the people I work with, have notice before they can even come on the site. It's my experience, because I worked as a guard on the security, for P.S.I., that they're not allowed on the site without a P.S.I. escort.

Q. Not allowed?

A. No sir, they will not let them come into the site without having a P.S.I. escort; and this was what I was instructed to do if -- when I was working as a guard, and I'd be on the gate and an NRC man came in, I was to hold him there until P.S.I. was notified and come to escort him.

Q. In other words, if I came -- if you were a guard there and I came there and identified myself as an NRC inspector, I couldn't enter the premises until a P.S.I. person came to escort me?

A. Yes sir; unless it's changed in the last two weeks, that's the way it was.

Q. I see. Do you know any of the Newberg inspectors, personally?

1
2 A. Not personally; I know them by sight.

3 Q. And these -- is this their only job, to inspect
4 cement, or do they have just general inspectors?
5 What is a Newberg inspector?

6 A. A Newberg inspector, the only one I'm associated
7 with is the concrete inspectors, and I think their
8 only job is to inspect concrete. I think, and I'm
9 pretty sure, they have other inspectors for their
10 carpentry work and iron works and this sort of thing.

11 Q. You told us something then about the apparent de-
12 fects that are indeed in the structures right now;
13 you know that they're there, is that right?

14 A. Yes sir.

15 Q. Back to the particular structures, you say the in-
16 side and the outside of the containment room, itself
17 is affected; that you know that these things are
18 covered up there?

19 A. Yes sir.

20 Q. The containment room, itself?

21 A. The containment walls sir, when I first started, was

22 -- one of my first jobs was to help patch these
23 holes on the side containment, inside and outside.

24 They, majority-wise, they patch most of the holes
25 according to qualifications, or according to the
26 way it's supposed to be; but they have so many de-
27 fects and holes that need to be patched that they
28 can't get them all; and that's the reason, one reason,

they're pushing the job so hard to try and get it done - that they're patching over these defects before the inspectors can see them.

Q. And this is done purposely then, as you have pointed out?

A. Yes sir, it's the only way it could be. The supervisors say 'patch it over'.

Q. And they say that in so many words - a Newberg supervisor says that?

A. I've heard statements where, from the supervisor personnel, to say fill in certain holes or honeycomb in the side of a wall before the inspector can see it. I, myself, have helped with this by hauling the material and drypack to these holes and patches.

Q. We've asked you about the containment room, itself, and you also have talked about a steam tunnel; any other structures involved in this honeycombing and the cover-over, that you know of?

A. Your turbine room walls, your floors; there's all kinds of walls, concrete walls and floors that, see, are necessary, besides just the containment. You have places where your heat pumps or some generators are going to be, and just pipeworks and ductworks and things like this that the patches aren't right, too.

Q. In other words, the same situation in the things you've just mentioned then; those kind of rooms?

A.

I would say the majority is on other, the turbine rooms and things, instead of the containment. It is on the containment, too, but it seems there was more on the other areas.

Q.

Can you tell us, Mr. Cutshall, about porosity of cement. We're all well aware of the Three-Mile Island situation and porosity cement, where radiation apparently can get through three and a half (3½) to four (4) feet of concrete. Is there any specifications you're aware of as to porosity of cement being poured at Marble Hill on various structures; or do you know anything about that?

A.

I'm not real familiar with the term porosity; I've heard it mentioned by the NRC inspector. The information I have is through an NRC inspector, where he was telling me that radiation will leak through seams and honeycomb patches at a lot larger rate than if it was solid concrete and done right.

Q.

But you're not familiar with concrete porosity as such?

A.

I can't honestly say I am.

Q.

Do you know who's furnishing this concrete?

A.

Newberg Construction Company. They have their own batch plant and they mix their own concrete.

Q.

Their own batch plant right on - ?

A.

Right on the site.

Q.

In other words, this is not a sublet proposition?

A. No sir, they mix their own concrete.

Q. They're totally responsible, I see. So whatever mix they make, it's their responsibility all the way?

A. Yes sir. There's a testing, U.S. Testing Corporation, is the one that's responsible for testing the concrete for the proper slump and the proper mixtures -- slump is a water content, somehow to do with the concrete, and the right ratios of cement and sand and rock mixed together.

Q. And this is United States Testing Company, did you say?

A. Yes sir, U.S. Testing.

Q. Well, how are they involved? Do they just --

A. (Interrupting) That is their only job is to test the metal bars and test concrete and test heating points of different materials and so on.

Q. What's their relationship as inspectors or testers?

A. They're a sub-contractor to P.S.I., for Newberg.

Q. They're not the inspectors that you've talked about here?

A. No sir; this is different.

Q. What, exactly, do they do? I mean, do they not do it at the -- where it's poured -- or what?

A. Yeah, they -- the U.S. Testing right at the pour, right out of the concrete trucks, they take samples of concrete to test; right on the pours, before the -- they take just, you know, samples out of the

concrete trucks as it's going to a pour.

Q. And they would know, then, whether it was accurate and to specifications by these samples?

A. Yes sir.

Q. Do you have any reason to question their work?

A. No sir, because I'm not associated with them; all I know is I see them out there taking samples all the time.

Q. Are you aware of any of the training necessary, for either United States Testing people or the Newberg inspectors? What do they have to do to be what they are?

A. When I was looking for a job this winter, and I was hired on at the Wackenhut -- for Wackenhut Security, that's the security corporation that takes care of P.S.I. and job site security -- I acquired an application from U.S. Testing for work for them too, at the same time; I was trying, you know, trying to fill in two chances at one time. And they told me I could have got hired, you know, would have been hired if I'd wanted to go ahead and do it, and I had no prior training. They would train you as you went.

Q. Train you on the job; is that accurate?

A. They wanted people that had experience, but they told me that since I'd been around concrete and know how, you know, what concrete is made up of and a little familiar with the slump tests, and things

like this, that they would go ahead and train me.
Train you as they were pouring; is that what they
had in mind?

Q.

A.

Yes sir. You have to understand that the job capacity that I would be fulfilling was more or less just taking the samples and things like this.

What happens to the sample then?

Q.

A.

They take it to their shop and they test it for the slump and numerous other tests, numerous other inspections I'm not familiar with.

Q.

A.

Have you ever had a bad batch?

I can't say that they have, because I'm not told; I'm just a laborer.

Q.

Have you ever known a case where they've taken some cement out because it wasn't any good?

A.

No sir.

Q.

To try to get some perspective about this patching of air pockets and honeycombing; what are we talking about? The reference that I grew up with was like bigger than a bread basket. How big are we talking about?

A.

I've seen patches as large as five (5) -- four (4) to five (5) feet in square, or honeycombs four (4) and five (5) feet square, that are patched in. Four to five feet in diameter --

Q.

A.

Yes.

Q.

-- like, would it come out like a hole? Exhibit I
page 18 of 23

1
2 A. Yeah; in diameter, you know, they're irregular shapes.
3 They're not necessarily a hole or rectangle; they're
4 just irregular shapes.

5 Q. And sometimes quite deep, like a four feet wall clear-
6 ing to three feet of it, or more, or less, or what?

7 A. A foot or -- I've seen patches or honeycombs that's
8 went in a foot, and better.

9 Q. And do you see these as the form is removed?

10 A. Yes sir.

11 Q. Is that when you see them?

12 A. After the form is removed. You can't see them, be-
13 cause of the forms, you know, blocking the sight
14 of them, until they're taken off.

15 Q. Would this be the average, or would they be much
16 smaller?

17 A. They're on the average -- well there really isn't
18 an average. Like I say, they're irregular shapes
19 and they might be anywhere from a couple of inches
20 to four (4) feet in diameter.

21 Q. Okay, if there was an irregularity of a couple of
22 inches, what would happen; you'd just go up and hit
23 it with a hammer and see if the cement gave, or
24 what?

25 A. Well, you could see it. It's just little holes, looks
26 like honeycomb; that's the reason it's got the name.

27 Q. It'd be an area then, would it?

28 A. Yes sir, that would be honeycombed.

Q. It could be then all the way from two inches to something like five (5) feet in diameter --

A. Yes sir.

Q. -- the honeycombed areas that you're speaking of?

A. Yes sir.

Q. Have you ever known a case when an NRC inspector was on the site and knew of a honeycomb, and knew that it was being covered up?

A. No sir. My impression of the NRC inspectors was, that they were pretty sharp men; they caught stuff that the supervisors would try to pull their leg on, try to - excuse the term - of bullshit on them, and they'd usually catch them on such things. But, again, the NRC inspectors, as I said, in a two-month period I've only seen him three (3) times. That's not saying he's not there more; but for where I'm at and I'm dealing with the concrete work every day, I've only seen him approximately three (3) times.

Q. What survey view would you have of the concrete, personally? Would you see five percent of it, twenty-five percent of it; how much are you involved in the total concrete picture?

A. A hundred (100) percent.

Q. You see it all then?

A. Yes sir. That goes back to what I said before.

I'm a concrete finisher's helper, I'm a laborer working as a finisher's helper. My job is to stay with

the finishers and keep them supplied, so I'm wherever the finishers are, pouring concrete or patching holes.

Q. In other words, if somebody would question this at some later time, they couldn't say well he only saw just five percent of the whole thing. You saw the entire -- you surveyed all of it then; you survey --

A. (Interrupting) Yes sir, I'm walking around the area every day, just gathering up materials, and there isn't five (5) percent of the areas that they've poured that I haven't seen.

Q. Okay. Is there anything else that you want to add here; anything that I haven't answered or asked you? Anything at all you'd want to say in a general statement here?

A. My main concern over the Marble Hill Nuclear Power Plant is that it's within a fairly close range of my home. I'm not against nuclear energy; in fact, I'm in favor of it. But I want to see it done right. I don't want to see things that I've explained prior in this tape go on and not be corrected, because I believe that such things that I've explained will definitely affect the workability of the nuclear power plant.

Q. Would it be reasonable to sum up then that you think that the quality is below standards at Marble Hill?

A. Yes sir.

Is there anything^{else} you want to say here, Mr. Cutshall?

Q.

No sir.

A.

Q.

Okay, this would continue the recorded interview;
and you understand that this has been recorded and
that you're under oath to tell the truth?

A.

Yes sir.

MR. GRAY: This concludes the recorded interview.

CONCLUSION OF STATEMENT.

C E R T I F I C A T E

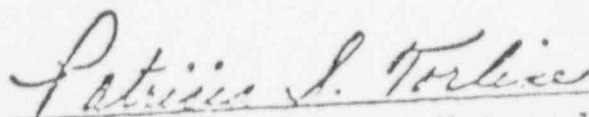
STATE OF INDIANA }
COUNTY OF JEFFERSON }

SS: -

I, Patricia S. Torline, do hereby certify that I am a Notary Public in and for the County of Jefferson, State of Indiana, duly authorized and qualified to administer oaths; That the foregoing sworn statement of Mr. Charles Edward Cutshall was taken by me in shorthand and on a tape recorder on May 8, 1978, in the law office of Thomas M. Dattilo, 311 East Main Street, Madison, Indiana; That the witness was duly sworn by me to tell the truth, the whole truth and nothing but the truth prior to giving said statement; That this statement has been reduced to typewriting by me and contains a complete and accurate transcript of the said statement.

I do further certify that I am a disinterested party in this matter.

WITNESS my hand and notarial seal this 26th day of May, 1979.



Patricia S. Torline, Notary Public
Jefferson County, State of Indiana.

My Commission Expires:

May 30, 1980.

State of Illinois } ss.
County of Cook }

Affidavit

I, Frank W. Rogers, of legal age and
being duly sworn, depose:

1. That I worked at Marble Hill
as a concrete finisher in helped John and
Newberg Construction Company out of
Local 195, Laborer's Local.

2. That I worked at Marble Hill from
March, 1979, through May 18, 1979.

3. That I have personally in my
capacity as a concrete finisher in helped
at Marble Hill been present when
one Steve Dwyer, Newberg represented
over concrete finishers & their helpers,
directed concrete finishers to
cosmetically cover honeycombed before
the honeycombs were to be inspected.

4. That I worked along with
Charles Cutshall at Marble Hill.

5. That I am personally aware that
Newberg Construction is using unethical
and untrained union laborers in and
around the concrete pour & finishing.

6. That I am personally aware of
the speed in which Marble Hill is being
constructed; that such speed in building
is causing unsafe working conditions
and improperly poured concrete; that
when I complained to my union

Frank W. Rogers

JUL 11 1978

last of july 20 years - in-built to grow
& finish concrete, & july 20th was
laid off from my employment.
- That I had worked in and
around concrete for the past
twenty (20) years or so.

Jewell W. Rogers

That I have read the foregoing
Affidavit consisting of two (2)
pages and including seven
(7) subparagraphs, and each &
every statement contained therein
are true & correct to the best of
my knowledge.

Jewell W. Rogers

Subscribed & sworn to before me,
a Notary Public, this 7th day of
July, 1979

My Commission Expires:
2-13-83

Thomas M. Dethlefs,
A Notary Public
residing in
Jefferson County,
Illinois.

State of Indiana }
County of Clark }

X J M

I, Charles J. Hot-Motened, of the age
of being duly sworn, state:

1. That I was employed out of
Local 694 of Cement Masons, Louisville,
Kentucky, working directly under Local
824 of Cement Masons. Logans. Indiana,
for Newberg Construction Company at
Marble Hill, from early March, 1979,
through May, 1979.

2. That my specific occupation
at Marble Hill was as a concrete
finisher (cement mason); that I would
be considered a journeyman in the
trade.

3. That Steve Hayes, Newberg's super-
intendent over cement work at Marble Hill,
advised this effort personally to cover
up honeycombs constructively before the
inspectors saw them.

4. That this effort has personally
obtained laborers being placed in
the capacity of concrete finishers
by direction of Steve Hayes.

5. That in my capacity as a concrete
finisher, I was personally ordered to
cover up a six (6) inch wide &
approximately twelve (12) foot wide expansion joint
on & around the base of reactor building,
which expansion joint was to be two
(2) inches wide, in my understanding
better, the quality work was poor.
I admitted there was a mistake, but
to cover up the mistake.

X Charles J. Hot-Motened

6. That I have personally observed
testing personnel at Marble Hill
testing concrete in a sheltered area
while a concrete pour was being
made in the study, long run.

7. That, during my term of
employment all black concrete
finishers sent to Marble Hill
were terminated; that, specifically,
two (2) blacks were terminated
after the hiring of two (2) white
concrete finishers.

8. That I have personally observed
'dead' dry pack used to cover
tie holes.

9. That I am appalled with the
quality of concrete work at Marble
Hill that I have personally
observed.

10. That, in my opinion, the union
workmen of each and every union at
Marble Hill, are being directed to
construct Marble Hill too quickly;
in the process, the quality of work
is becoming questionable and
approximately four (4) years of
wages per union member are
being lost.

*Stephen
M. Orshen*

That I have read the foregoing two (2)
pages and the (10) sub-paragraphs
of the Affidavit, and find and

every statement contained therein
are true and correct to the
best of my knowledge

Stanley W. Moore

Subscribed and sworn to
before me this 8th day of
July, 1979.

My Commission Expires: Thorn M. Betts
2-13-83

A Notary Public
residing in
Jefferson County,
Indiana

State of Indiana }
County of Clark } ss

Affidavit

I, Michael L. Walston, of legal age, & being duly sworn, state

1. That I was employed as a concrete finisher working directly under Local 221 of Amens Masons from February, 1979 until the latter part of June, 1979.

2. That I have sup (6) years experience working in and around concrete.

3. That my foreman, Jim Cutshall, ordered me to cover up honeycombs irregularly.

4. That I have personally observed concrete being dropped thirty (30) feet, approximately, from the conveyed belt to the pour area numerous times at the Marble Hill site.

5. That I have personally observed ground being made too quickly for the vibrator operators to keep up and properly vibrate the concrete; that this event occurred frequently.

6. That, in my opinion, most of the concrete pour on which I have personally observed have not been properly vibrated.

7. That I was personally sent home by a Nantony representative, while two (2) libors remained on-site - which concrete in my

areas; that the two (2) libors
X Michael L. Walston

and that fine were not correct
figures.

x Michael L. Walters

I had I have read the foregoing
affidavit, consisting of two
(1) pages and including
seven (2) photographs, and
each and every statement
contained therein and true and
correct to the best of my
knowledge.

x Michael L. Walters

Subscribed and sworn to
before me this 8th day of
July 1978.

My Commission Expires Thomas M. Dittell
2383 & My Public
resides in
Jefferson
County, Idaho

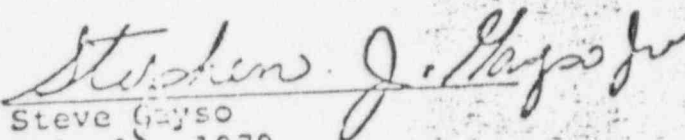
SUBJECT: MARBLE HILL NUCLEAR GENERATING STATION

To Whom It May Concern:

I, Steve Gayso, at no point in time authorized any of the following individuals to patch or cover up any defective surfaces, honeycomb, voids, or rock pockets without prior approval from N-MH Q.C. or PSI Representative at above job site:

Stanley Mortensen
Michael L. Walston
Jule Rogers

I, Steve Gayso, am a supervisor and all my orders and directions go directly to the Foreman, however, I will indicate when men are loafing to get back to work.


Steve Gayso
July 10, 1979

SUBJECT: MARBLE HILL NUCLEAR GENERATING STATION

To Whom It May Concern:

I, James Cutshall, at no point in time authorized any of the following individual to patch or cover up any defective surfaces, honeycomb, voids or rock pockets without prior approval from supervision, N-MH Q.C. or PSI Representative at above job site:

Michael L. Walston . .

James A. Cutshall
James Cutshall
July 10, 1979

Exhibit VII

ERRORS MAY EXIST IN THIS TRANSCRIPT DUE TO TRANSCRIPTION DIFFICULTIES.
IT HAS BEEN REVIEWED FOR MAJOR ERRORS.

This is a tape recording of a conversation with Individual "J" of Newberg Construction Company at the Marble Hill site. James Foster and Cordell Williams participating.

July 18, 1979

- Q. Individual "J", you and I were discussing the problems that we'd seen in some of the patches out at the plant, both the patching material in some cases being weak, and we indicated that we had found in other discussions that in some cases the cement material had been stored in 55 gallon drums and in some cases apparently gotten wet and resulted in some dead cement when the patches were done.
- A. That's true and I know myself on some occasions when the helper was going.....first of a morning, I have dumped just a full bucket of.....simple fact that it was dead.
- Q. The other problem that seems to be prevalent through the plant, and I don't have exact numbers, it seems like, looked at over 500 patches during the review and found 170 I think approximately, give or take a few, that had problems or questionable to some extent. We found a number of areas where the patch is somewhat of a thin layer over honeycombed areas where the rock has not been chipped out. The exact number of those I can't tell you but producing a good number of them. That's one of the areas that we're very concerned about, trying to understand how we got to where we are now and finding out whether anyone in a supervisory position who has knowledgeable knew that this was going on, and didn't get flushed up through the system, and hoped that you would be able to tell us a little bit in your own view point how this particular situation came about.
- A. I only know some of this. Our finishers, we worked short handed always as far as fully qualified people are concerned. We've got some young people that come in that are not fully qualified and they are trying to teach them and with this type of thing, a young man can't be everywhere at the same time. And I think as far as your journeyman finishers are concerned, they were doing the very best they could, the way they were told to do it.

Q. How were they told to do it, Individual "J"?

A. We were told that your honeycomb would be tagged. O.K., after you go through process in removing the tag, then chipping takes place. After your chipping takes place then it is inspected again by Newberg and PSI. Then, if they sign it off we patch it back.

Q. Considering the number of patches, I wish I had an exact number to give you, but I don't, where a thin layer of material has been put on or all the honeycomb has not been chipped out, I guess it is somewhat of a concern to us that the foreman or somebody else, or the superintendent here, Mr. Steve Gayso has been named by several people as knowledgeable that this was going out in the field, and you indicated to me a little earlier that you might be able to shed some light on these comments.

A. Pertaining to Bud Cutshall, Bud Cutshall worked in the same period I do for Joe and he and Steve had a personal plan going between them. Bud is not a good worker by any means. He'll goof off every chance he gets and Steve was on his butt and one morning we was down on 391' 50, this was just before Bud left the job. He made the remark to me that "I'll get Steve Gayso's butt any way I can" and you hear this kind of chatter on the job all the time and I never gave another thought to it, because you hear that kind of thing, but then after this whole thing come out, it was pretty plain to me that the man meant what he said.

Q. I believe that Charles Cutshall left site on May 11. Would this be a couple of days before then?

A. Somewhere in that neighborhood. If Bud wants to challenge this I'd be very happy to point it out to him the very time and place this conversation took place.

Q. I understand from previous discussions, before we got the tape recorder working, that you have worked on Joseph Cutshall's crew since coming on site and still are a member of his crew. We spoke with Joe yesterday and among other things we asked him the question, had he ever directed any member of his crews to cosmetically patch over an area with honeycomb had not been removed.

A. To my knowledge he has not.

- Q. Have you personally been aware of any other foreman or the Newberg Superintendent giving orders that such cosmetic patches be made?
- A. Not to my knowledge, no. Now let me clarify something here. I have done this myself. Now where there was an air pocket, you know what I am talking about, from the vibrator, and you will get a whole series in the face of the wall. Now I'm guilty of taking my hand and dry patch mix and slip and sliding over it to dress up the wall.
- Q. These are mostly surface defects?
- A. These are surface air pockets, what's caused by the vibrator. It is not a honeycomb.
- Q. I believe I've seen these things. We have people who have told me that these are normal surface defects with no structural importance.
- A. There is no structural value whatsoever.
- Q. O.K. You mentioned that in your knowledge, neither the superintendent at Newberg nor the foreman were knowledgeable of the cosmetic repairs of the honeycombed areas.
- A. Not to my knowledge.
- Q. Would any of the quality control personnel of either Newberg or PSI be knowledgeable, to your information?
- A. This is my honest opinion. If this has took place, if PSI and quality control had been on the damn ball and been doing their job, then this would have been tagged when we got there. Let me go just a little bit further here. I was on this job for around five months before I ever saw an NRC inspector.
- Q. We are at the site irregularly, especially during the earlier stages of construction, our inspections pick up in the later construction effort.
- A. My feeling is this: if we had had the people that was supposed to be doing their job were out there doing it, then the whole thing, if

there is any fault, it would have been caught before we got there. Honestly, what I think everybody is saying, we're getting the blame because somebody else didn't do his damn job.

Q. We in the NRC understand that the workman on site generally does whatever he's told to and we don't hold the workman personally liable for any defect at the plant. The utility, who has a license from the NRC, is charged with making sure that the work is done properly; they are supposed to oversee the quality control efforts of your own company. They are the people who ultimately have to answer for the quality of the plant. That's very true.

Since Bud Cutshall's statement has come out, we received three other statements from other people and I have been in contact with one gentleman in addition to them.

A. Would you like me to name the oneyou been in contact with?

Q. If you can, I'd be interested.

A. Individual "A".

Q. I've talked to Individual "A" on the telephone.

A. Do you know what his personal vendetta is?

Q. No sir, I don't.

A. His father-in-law and Steve have a personal thing going - there's a personal dislike there. Now I worked on the job with the father-in-law and he continually cussed Steve up from the time he got here to these I think he quit. The whole difficulty was that he wanted the foreman's job and he didn't get it.

Q. I see.

A. So I think that's more than likely Individual "A's" big gripe. I don't agree with Steve's methods 100%. You know yourself that you can make a man miserable.

- Q. I think we realize that. We also have a statement from a Stanley Mortensen.
- A. Stanley Mortensen, yes sir, I can tell you exactly. He and Bud were like two peas in a pod from the day he hit the job. (Deleted to protect the privacy of the individual.)
- Q. I understand (Deleted to protect the privacy of the individual).
- A. That's my understanding. I don't know if it's reliable and I don't know what was put on his layoff slip or anything about it but (deleted to protect the privacy of the individual) I know Mortensen hated to lose his job and I think every man hated it because he did lose his job, but nevertheless there's a personal vendetta that comes back to.....
- Q. We also have statements from two other, these people approached Mr. Datillo who's the lawyer for SAVE THE VALLEY. Jewel Rogers.
- A. Jewel - this is the type of man and the type of supervisor he is. You can go out there and can go to work and if you try to work as it falls, you get in there and do your part. He'll stay off your butt and leave you alone. But if you walk out there on his job and you go to work and you go hunting for the easy stuff you're going to make..... There's another vendetta.
- Q. One more man who has provided an affidavit to us through SAVE THE VALLEY. His name is Michael Walston.
- A. Mike - that one there, I never worked enough with that man to know.
- Q. Can you tell me which of these, any of these people work on your crew or were they on another crew?
- A. That Mortensen, he worked on our crew, and as far as I know the man is unexperienced and I never did see the man put in a patch. The only thing I ever saw him do was break nails, cleaning the imbeds and patch tie holes.

Q. From what you told me, it seems that you feel there was a conspiracy of several people to get Mr. Gayso out.

A. I do. I think that is exactly it. These guys, for one reason or another, they're ticked off at him and if you get it in for a supervisor with all the other crap that's going on the project out here, what would be a better way to settle it?

Q. And again, from what we were talking about just a few minutes ago, and I don't want to put any words in your mouth, especially in a case like this, is it your belief that the inexperienced people that were hired as finishers, were doing the repair work, were responsible for those areas where the honeycomb has not been removed?

A. They could have been responsible for quite a bit of the chipping, anything where there was a major patch to go in, I think the biggest majority was done by us old journeymen. And here is something else. As far as your chipping is concerned, we were not given any depth as far as the chipping is concerned. We were told that you go back to some solid stuff regardless of where it may be.

Q. That's the way it should be. I guess that there are areas that I could understand how you might chip back and think you were at solid concrete and sometimes miss it, a patch of honeycomb that didn't get removed and had to be put in.

A. I've done some of the chipping myself and every patch that I.....every patch that I chipped after I finished with the chipping, then it has been inspected by QC and he has signed and approved it before we patch it back.

Q. How did QC and PSI know that you were finished and ready?

A. Whenever we finished a patch with the honeycomb, chipping, we notified our foreman. He in turn gets hold of QC or get hold of PSI then they come down and inspect it, then after they inspect it, sign, and then we are released to re-patch.

Q. Did you have much hold up in getting QC and PSI down in instances where they didn't have time to come and see?

A. We have had this happen and at no time did we proceed until it was done.

Q. Individual "J" let me tell you what really causes us some problem at this point and hopefully you will be able to enlighten us. We do need to know the true story. The areas we've seen, and again we've seen a reasonable number of them, where there is a cosmetic patch over some just plain pure and simple honeycomb. To Cordell and myself and other people who have looked through, there seems to be a large enough number of these areas that we find it difficult to understand how it could have been made without a foreman or somebody else in a responsible position knowing that this was happening on the job. It is really a fundamental difficulty that we have, because we need to understand, if we can accept that people didn't know what was going on, how this could happen.

A. What areas are you talking about?

Q. I am essentially talking about the lower levels of the auxiliary building.

A. Your lower levels on that probably were done last summer and last fall, and that would be before I came on the job.

Q. By lower levels, you mean elevation 364"?

A. 364" is about the time that I went to work.

Q. I guess that there was one that I personally have seen, and I have not seen all of them, where it is on the bottom of a slab and where there is a very thin coating of patch material underneath this really very loose honeycomb and I guess that if there were only one or two, I think it would be very easy for you to believe, well a couple of men didn't know what they were doing and knocked off early one day and wanted to hurry and rather than call in QC and get busy with the chipping hammers, they patched this right over. There's enough of those areas that are similar, some what similar, perhaps not as thin a coating or had honeycomb behind them, that I really need to understand how that happened. Were there times when the foreman would not be present for long times while your people were working? Finishers like yourself were doing patches?

A. No I don't think so. I can't explain it. I don't know. Our foreman was there and I'm sure that I put in as many patches down there as most any in my crew.

Q. What would happen if you were down there, I take it you people would be down there when the forms were stripped, when the stripping crews were down there.

A. On some occasions yes, but most occasions no.

Q. O.K. If they came upon a patch of honeycomb and they didn't call it to anybody's attention, QC, or pointed it out to the foreman, and started patching it, would someone know about this other than the finisher himself?

A. I don't think it could be done because you got enough qualified people on the floor to know definite.

Q. In those cases where you have tagged, in your personal opinion in the areas where you observed, what is your opinion of the evaluations that Newberg QC or PSI QC has made? Are they good opinions? In my conversations with the QC people, I find that my personal evaluation is evidence of them not being fully qualified. Have you had any experiences like that?

A. Yes. I've seen and heard enough that if I had been in their position I wouldn't have approved.

Q. We have some other comments along much the same line and at least in one occasion our own inspector found areas apparently been approved for patching that he had some real problems with. When circumstances like that occur, have the foreman, or you made a complaint?

A. No, because as far as we was concerned, they were the final word.

Q. Another question on our part - most of those who made allegations of the helpers and your perspective, I understand, each had some personal difficulty..... Were any of these people these laborers who were essentially untrained, trainable in your view?

A. Yes, we've got a man out there right now from labor and they're being trained.

Q. Is that going well?

A. That's going real well, but here's the thing about it. You take a man that's willing to work and his head's not a yard thick you can train that man but if that man don't want to work I don't give a damn how much time you spend with him you're not going to teach him anything.

Q. Let me ask you another question here. In several instances we found what would normally amount to a good patch, except that it had been patched with dead concrete, something you pointed out to us that you'd pointed out to us previously. In one instance that was dug out, that we saw, and one that we knocked out ourselves, the concrete upset like putty. Did someone do what you did, come to the conclusion that this was dead concrete before it was put in? And from the way you've described conditions down there, I would conclude, maybe not accurately, have no proof that there was some qualified people, maybe some helpers, more than likely foremen, that were in the area when this was done. Do you have any opinion as to why we're finding quite a number of patches that show evidence of dead concrete?

A. Yes, I've got one idea of my own and I don't know exactly where I got the idea from, I was told when I come on the job. When I make dry pack, the way I was taught to make it years ago, you take sand and cement and mix it together. You mix it to where you can squeeze it in your hand and make a ball and when you open your hand up, that ball will stay there and not fall apart. Alright, you can squeeze it as hard as you can but you can't squeeze it. Alright, when you open your hand you'll hold that ball toward the sun, you can see water crystals. Then you've got a good dry pack. Alright, I don't know where I got the idea, I couldn't tell you who told me, but anyway the pack we were using was dry and in my opinion it was too dry, and my honest opinion is that in a lot of cases you've got dead cement, plus you don't have enough moisture that will set your material. Then when you take your wet mud on the outside to face it, your wet mud will penetrate so far, when your moisture runs out and from there on its powder.

Q. When talking earlier to a couple of people, especially in management, they told us that on some days when you had bad weather, a rainy day and there was no work being done in other areas at the plant, that

often the finishers would be kept on site and would be asked to go into areas in the auxiliary building for example, and do patching and those days also the stripping crews, in order to keep them employed they would also be sent down in that area to strip forms. People that we talked to appeared to believe that this might have been the days in the time frame when some of the honeycomb areas have been patched over improperly, because the quality control people were perhaps catching up on their paperwork on a rainy day, that stripping crews were down there moving forms and finishers had been generally instructed to go down and do patching. Does this appear accurate?

A. We were clear back from the wrecking crew; they would be working on one area and we would be working on another. This has happened numerous times. I'll tell you something else. I don't know, it is just an idea.

Q. I am interested in opinions.

A. I've seen this happen. Where wreckers will be backing out. At the time they pull those forms, and it is raining. Alright, you can take and patch material over top of something.

Q. Yes you could.

A. Now I don't know that it happened, but it is an idea.

Q. That this might be done by a stripper?

A. It could be. I don't say it's so, I say it is a possibility.

Q. O.K. It is a possibility that hadn't been mentioned to us earlier.

A. But I know myself because I owned and operated a business for 10 years and if you want to fix something where it is up, an outside job where you don't have any danger or water problems or something like that, you've got a honeycomb that's above ground level by the time you take and strip that form, take and wet it you can place it and go on.

Q. This would be normal for a, say supermarket, parking lot, apartment building?

A. That's right - that's just what we're talking about.

Q. Another question: In those instances where one has dug out a honeycomb area to one extent or the other, say I've got a honeycomb that has pretty regular dimensions - I'll look into it, it's six inches deep all the way around it and I get into a place where it squirms off and gets eight inches deep and builds up and the guys dug it out in that configuration.

A. You'll never hit it like that. You'll be running by a 1/2" down to 2" and then it will go up to say 4" and then you've got to dry pack all the way back and there's no way in hell you are going to pack it back like that.

Q. What do they do then?

A. They went ahead and wrote it off. These are some of the chippings that I said that I would personally not approve.

Q. The shape of the patch was such that you couldn't even make a good patch, no matter how good you were. To this extent PSI and Newberg QC didn't make a good judgement, they didn't give you a good shape to try to fill back on?

A. Their orders was this: Go back to solid material, at that point you stop.

Q. Who gave that order?

A. I couldn't tell you where the order come from, it was just the way we got it and this is something that is improper and there is no man alive that can put that patch back and make a good patch out of it.

Q. Some of the stuff I saw falling off, I'd have to agree with you. Anything else you want to tell us while we're here?

- A. Just what I told you, that if you have any more names you want to throw at me, the people that I think griped and squawking the most, I think it was strictly personal and not business.

END OF TAPED PORTION OF INTERVIEW

I, Individual "K" make the following written statement freely and voluntarily to Mr. James E. Foster, who has identified himself to me as an Investigation Specialist of the U.S. Nuclear Regulatory Commission. Mr. Foster has advised me that I do not have to make a statement, and any statement I do make may be used in a judicial proceeding.

I am a finisher for the Newberg Construction company at the Marble Hill site. Individual "L" told me that on July 18, 1979, sometime in the morning, Individual "K", known to me as a Newberg concrete placement foreman, asked Individual "L" to cover up a honeycomb area on cooling tower I. The pour for the concrete had just been stripped, and he stated he wanted it covered up "before they see it". We both refused to do this.

This was the only occasion when I have been asked or ordered to patch improperly repaired concrete.

I have done little concrete patching myself, except for tie holes and seams. I have been given "dead" or deteriorated cement for patching, but did not use it, and observed some "dead" cement on Turbine bldg II yesterday.

I have read this statement, consisting of one page, and it is accurate to the best of my knowledge and belief.

Witness James E. Foster 7/19/79

Cordell Williams 7/19/79

Individual "K" 7/19/79

typed transcript of statement

Exhibit VIII
page 1 of 1

I, Individual "G", make the following statement freely and voluntarily to Mr. James E. Foster, who has identified himself to me as an Investigator, U.S. Nuclear Regulatory Commission. Mr. Foster has informed me that I do not have to make a statement and that any statement I do make may later be used in a judicial proceeding.

I have been a finisher foreman for Newberg Marble Hill since mid-November, 1978, and have worked at the construction site several times previously.

I have never ordered finishers in my crew to patch areas where honeycomb was evident and had not been tagged. No member of my crew has been ordered to "cover-up" areas which were not chipped. I feel that some areas were not chipped out to the extent that all unsound material was removed. I believe that these areas were approved for patching by honest mistakes in judgement.

Concrete has been stored in barrels and has deteriorated prior to being used for patches. This was brought to the attention of Newberg and PSI in March of 1979 approximate.

I have not received any training in Quality Control from Newberg, and do not believe that the other foremen received such training.

I do not believe that PSI QC inspectors were aware of patches being made improperly. Mr. Stanley Mortensen worked on my crew, and did no patching to my knowledge. I do not recall any date on which he worked for Individual "F".

On Inclement days such as rainy days, finishers would often be kept on at the plant to do patching. In some cases they may have patched surface conditions which hid honeycomb pockets they were not aware of.

Two problems on this job have been the level of experience of some personnel, and the configuration + procedure used to perform patches. Deep pockets may not have

typed transcript of statement

Exhibit 10
page 1 of 2

been filled by the "ram pack" method utilized.

Mr. Foster has read the above statement to and it is true and correct to the best of my knowledge and belief.

Witness: James E. Foster 7/17/79

Individual "G" July 17-79

Cordell C. Williams 7/17/79

I, Individual "N", make the following statement freely and voluntarily to Mr. James E. Foster, who has identified himself to me as an Investigator, U.S. Nuclear Regulatory Commission. Mr. Foster has informed me that I do not have to make a statement and that any statement I do make may be later used in a judicial proceeding.

I am a steward for the finisher's Union, and have worked at the Marble Hill site for approximately one year and seven months.

I have been physically present when Mr. Steve Gayso, Superintendent for the Newberg Construction Company, has ordered Individual "G" to cosmetically patch over honeycombed areas of concrete. These have been small areas of approximately one-half foot square. This happened only occasionally.

Individual "G" passed on the orders from Mr. Gayso to the crew members. I personally have not been ordered to cover up any honeycombed areas.

Improperly repaired areas (such as ordered above) were located in the Auxiliary building, fuel handling building and other areas.

I have read the above statement, and it is true and correct to the best of my knowledge and belief.

Witness: James E. Foster 7/18/79

Individual "N" 18

typed transcript of statement

Exhibit X
page 1 of 1

Individual Identifier Code: Report 50-546779-05, 50-547779-03

KK (Parble Hill Investigation)

- 4 A
- 5 B
- 6 C
- 7 D
- 8 E
- 9 F
- 10 G
- 11 H
- 12 I
- 13 J
- 14 K
- 15 L
- 16 M
- 17 N
- 18 O

FOR NRC FILES ONLY (CONTAINS IDENTITIES OF CONFIDENTIAL SOURCES).

Withhold

6/24/77 date of Limited Work Authorization

3/9/79 C. Cutshall hired as finisher's helper, Jewel Rogers hired.

3/29/79 S. Mortensen hired as a finisher

3/29/79 void found in aux. building slab at 373'6"

4/3-6/79 NRC inspection: honeycombed concrete, dirty rebar, repairs improper

4/6/79 SSL, PSI, N-MH inspect aux. building void.

4/9/79 letter to Newberg from PSI: honeycomb on two slabs.

4/11/79 letter to Newberg from PSI: stop honeycomb trend, better QC

4/30-5/3/79 NRC inspection: preplacement problems, improper curing of concrete.

5/1/79 QAPN-10, Inspection & Test Control revised (rev. 3)

5/5/79 QAPN-10, Rev. 3 implemented (?).

5/7-8/79 ultrasonic testing of aux. building slab.

5/8/79 S. Mortensen laid off (approx. 28 working days at site).

5/8/79 C. Cutshall makes sworn statement to Datillo

5/10/79 Newberg holds training session (placement crews).

5/11/79 C. Cutshall laid off at his request (approx. 45 working days at site).

5/15/79 NRC/PSI management meeting at PSI: concrete problems, testing of aux.

5/17/79 letter to N-MH from PSI regarding quality of work at site.

5/18/79 Jewel Rogers laid off.

5/21/79 letter to PSI from N-MH: will limit placements, have more QC.

5/26/79 date of witness statement on Cutshall's affidavit.

6/4/79 call to RIII from PSI: aux. void will be a 50.55(e) report.

6/12/79 letter from N-MH to PSI: outlines basic procedures.

6/12/79 Datillo sends petition to NRC, attaches is C. Cutshall statement.

6/12/79 PSI notifies RIII that statement brought up in TV interview.

6/13/79 RIII gets entire statement (clear copy on next day).

6/13/79 Datillo calls RIII, advises he is lawyer for Cutshall.

6/15/79 PSI and Newberg begin patch testing.

6/21/79 RIII calls PSI, they advise many patches bad.

6/22/79 RIII sends Foster and Hawkins to site.
6/25/79 first contact with C. Cutshall from Datillo's office.
6/26/79 meeting of RIII/PSI at site, category 1 placements stopped.
7/1/79 direct telephone contact with C. Cutshall.
7/5/79 formal SO.55(e) report on aux. building slab void.
7/7/79 C. Cutshall site visit.
7/7/79 Jewel Rogers statement.
7/8/79 Michael Walston statement
7/8/79 Stanley Mortensen statement.
7/10/79 Shields (PSI) visits RIII to discuss site problems.
7/10/79 Stephan Gayso statement to N-MH
7/10/79 James Cutshall statement to N-MH.
7/16/79 Barker (PSI) visits RIII, discusses IAL, site problems.
7/20/79 RIII meeting with PSI at site, category 1 placements stopped.