

MEMORANDUM FOR: Chairman Palladino
Commissioner Gilinsky
Commissioner Bradford
Commissioner Ahearne

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FROM: James J. Cummings, Director
Office of Inspector and Auditor

SUBJECT:

Attached please find our report entitled, "INVESTIGATION #ENFORCEMENT, REG-1311 / ADEQUACY OF INVESTIGATION 80-358/80-09 AT THE WILLIAM W ZIMMER NUCLEAR POWER STATION BY", dated 1981. This inquiry was conducted pursuant to a December 15, 1980, memorandum from former Chairman Ahearne directing that the Office of Inspector and Auditor (OIA) ~~conduct an investigation into~~ ^{determine} whether the Office of Inspection and Enforcement (IE) had conducted an adequate investigation of the allegations of Mr. Thomas Applegate regarding activities at the Zimmer Nuclear Power Station.

OIA's overall finding is that the IE investigation of Applegate's allegations, IE Report # 80-09, was ~~both~~ ^{feasible} deficient, and ~~misleading~~ ^{to the public}. Our finding is based on the following:

- The investigation failed ^{ed} to properly document the results of investigation both as to interviews and material reviewed.
- The investigation failed to determine the correct status and history of several welds.
- The overall investigative ~~thrust~~ ^{effort} was ~~neither vigorous nor~~ ^{not} sufficiently broad in scope.
- The ~~investigative~~ finding is "not substantiated" with regard to the allegation that defective welds in safety-related systems had been accepted is not consistent with the facts.

In evaluating the sufficiency of the IE investigation in this instance OIA has made a conscious effort to ^{temper} ~~factor~~ into their evaluation process ^{with} the very obvious fact that few investigations can successfully withstand the criticism of a Monday morning quarterback; unfortunately, we still conclude that ~~the overall~~ investigative effort in this instance was

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- unsatisfactory. In our opinion responsibility for this situation must be shared ^{by the individuals} by the individuals who were specifically assigned to the case but also ^{by} those regional and headquarters officials who failed to properly supervise the case.

No specific corrective recommendations are being made by OIA at this time because we are hesitant to ~~recommend~~ ^{conclude} to conclude that the IE investigative program is deficient based on one instance. ~~However, we plan to conduct~~ ^{because we have seen indications that}

~~A more extensive review beginning in July or August 1981 after which we will determine if corrective recommendations are warranted.~~ ^{SEPTEMBER} ~~this may be the case,~~

Attachment:
As stated.

~~is planned for~~
of the I+E investigative program will begin
~~is planned for~~
in August Sept 1981, after which!

cc: W. Dircks, w/att
V. Stello, w/att
J. Keppler, w/att
J. Fitzgerald, w/att

SUMMARY

In December 1980, the Government Accountability Project (GAP) made allegations on behalf of Mr. Thomas Applegate to the effect that (a) potentially faulty construction existed at the Zimmer Nuclear Power Station, Moscow, Ohio, and (b) the NRC failed to properly investigate the faulty construction allegations when they were first brought to the NRC's attention in February 1980 by Mr. Applegate. The Office of Inspector and Auditor (OIA) was directed by the Chairman of the NRC to investigate GAP's latter allegation, i.e., whether the Office of Inspection and Enforcement (IE), Region III adequately investigated Mr. Applegate's February 1980 allegations.

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During the period December 1980 through February 1981, pertinent current and former Region III personnel were interviewed to identify what was done as a result of the initial allegations made by Applegate. All available documentation relating to IE regional investigative procedures and copies of ~~numerous~~ inspection and investigation reports pertaining to the Zimmer site were reviewed.

OK INTERVIEWS

ALCIA SUPPORT
FOUR NUMERICAL
INSPECTION
REPORTS

Review of the material furnished by GAP in December 1980 disclosed that only a limited number of the GAP allegations had been brought to the attention of the Region III IE investigative staff by Applegate in February 1980.

REVIEW
DATE

what was?

Based on interviews conducted at Region III, OIA determined that the initial investigative effort conducted by Region III had assessed the allegations, had received available material, and had initiated an investigation into those allegations that Region III determined to be within the purview of the NRC. Regional personnel advised that the investigative effort was conducted in accordance with IE procedures and that they believed that the report thoroughly documented discoveries surfaced during the investigation.

OIA review of the investigative file disclosed ~~that~~ little documentation ~~could be furnished~~ to supplement the Region III IE investigation report. For example, the investigative file contains no detailed documentation reflecting the results of interview with Applegate or principal witnesses and no detailed record or copies of the welding documentation reviewed by the investigators with regard to the specific welds alleged to be defective.

Applegate's statement
Support

OIA review of Zimmer welding records revealed that of the three alleged defective welds specifically identified by Applegate in his first allegation, two had been repaired or replaced, one (K-811) shortly before and the other (RH-42) during the IE investigative effort at the facility. The IE investigative report did not identify the dates on which the welding rework was conducted on weld K-811 or that nonconformance report (NR) on K-811 that had initially been voided with the notation "accept as is" was later reopened to order the weld cut out. The investigation also ~~completely~~ failed to determine that weld RH-42 had been cut out and replaced after the initiation of the IE investigation. Interviews of the investigators disclosed that they had no knowledge that welding repair on RH-42 had taken place. In fact none of the welds in questions were inspected by the investigative team nor was all pertinent welding documentation reviewed by the investigators.

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Applegate's second original allegation concerning the installation of safety-related prefabricated pipe containing alleged defective welds was partially substantiated by the IE investigation. This allegation, as it related to improperly "closing out" an NR and installing the pipe, resulted in the region identifying one item of non-compliance and issuing the licensee an "infraction." However, OIA interviews and review of records indicated that, even though appropriate tests were ultimately conducted by the licensee to determine the status of welds on the prefabricated pipe, three pieces of pipe were in fact installed by the licensee despite an outstanding NR. In addition, tests required to resolve the questionable welds were not conducted by the radiographer or vendor until approximately five months after the pipe had been released for installation (April 1980 - during the period of the IE investigation). The IE investigative report failed to sufficiently investigate this aspect of the case. Additionally, during the investigation of this allegation, information was received that the alteration of the NR - which released the spool pieces for installation - was ordered by the Cincinnati Gas and Electric Company (CG&E) Quality Assurance (QA) Manager. This fact is not included in the investigative report nor was it vigorously investigated.

OK PHILLIP INTERVIEW

OIA review of records and interviews of regional personnel did not develop any additional information regarding the third allegation - inadequate pipe flushing procedure - that was not identified in the IE investigation report.

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The two principal members of the investigative team stated that they believed that the report documented sufficiently what was discovered during the investigation. One of the members indicated that the investigation report contained much more detail than a typical inspection report.

OK SIMON INTERVIEW

OK WARD INTERVIEW

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One of Applegate's main allegations was "that defective welds in safety-related systems have been accepted, among them welds CY 606, HR 42 (sic) and K 811." By virtue of prior IE inspections, Region III reports 78-30 and 79-17, regional supervision and the IE investigators were well aware of the chronic and long history of welding problems at Zimmer; specifically, that unacceptable welds in safety-related systems had for all intents and purposes been accepted by both the contractor and, in some cases, the licensee and that the Zimmer QA/QC program with respect to welding was clearly not functioning in an acceptable manner. Nonetheless, the Region III report found that Applegate's allegation in this regard was not substantiated because the welds had not yet received "final acceptance." [When questioned about this finding it was the position of several of the Region III supervisory staff that "final acceptance" does not occur until the licensee actually accepts turn over of the system from the contractor and thus, since this had not yet occurred, no weld could be considered final.] In fact, Applegate was correct both specifically and generally in saying that defective welds in safety-related systems

OK WARD INTERVIEW

OK - INTERVIEW

1. CIA ... this mistake was unsatisfactory. Responsibility rests not only with

had been accepted; furthermore, the NRC, as early as 1977-1978, was aware of the fact that potentially defective welds in safety-related systems had been accepted and had issued two reports on this subject. To say that Applegate's allegation was not substantiated is not consistent with the facts.

Conclusion

appears to be a question of semantics and

BACKGROUND

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In early December 1980, NPC received a copy of a petition filed with the Office of the Special Counsel of the Merit Systems Protection Board by the GAP of the Institute for Policy Studies (not a Governmental agency) on behalf of Thomas W. Applegate. Based upon the allegations in this petition, former NRC Chairman John Ahearne requested by memorandum dated December 15, 1980 (Attachment 1), "...that the CIA conduct an investigation into whether the Office of Inspection and Enforcement conducted an adequate investigation of the allegations presented to it by Thomas W. Applegate regarding activities at the William H. Zimmer Nuclear Power Station." The Chairman further directed that IE investigate the safety issues raised by the GAP petition. OIA formally received the GAP petition by a transmittal letter dated December 29, 1980, from the Office of the Special Counsel (Attachment 2).

OIA met with GAP representatives on January 9, 1981, and on several occasions thereafter, to discuss the allegations at which times additional documentation was provided after NRC agreed to respect the confidentiality of GAP's sources. Because the additional documentation related to safety issues, OIA provided it to IE for its investigation. During these meetings GAP explained that their allegations should not be construed as personal to Gerald Phillip; rather they were alleging that the NRC did not properly address the allegations.

DETAILS

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Review of GAP Material

During the period December 30, 1980 through March 4, 1981, OIA reviewed the original petition submitted by GAP to the Office of Special Counsel, held meetings with GAP representatives and obtained additional documentation (including notarized statements and tape recordings) related to issues identified in the original petition. In addition, other documentation was provided which appeared to pertain to separate allegations of construction irregularities at the Zimmer site. Much of the information furnished after the initial OIA/GAP meeting contained statements and interviews of individuals which occurred at points in time following the Region III IE investigation of the Applegate allegations. As a result of the document review it was suspected and later confirmed that many of the allegations described in the petition were, in fact, not brought to the attention of the Region III personnel at the time of the initial investigation (April-May 1980). The GAP petition listing the allegations (pages 13 and 14) which were presented as not being appropriately investigated is included, with enclosures, as Attachment 3.

Meeting with Region III Personnel

On January 13, 1981, David H. Gamble, John R. Sinclair, and Arthur A. Schnebelen, Office of Inspector and Auditor, met with the following employees of IE, Region III, at the regional office, Glen Ellyn, Illinois:

James G. Keppler, Director, Region III

A. Bert Davis, Deputy Director

Charles E. Norelius, Assistant to the Director

Gerald A. Phillip, Senior Investigator

Gaston Fiorelli, Chief, Reactor Construction
and Engineering Support Branch

Kavin D. Ward, Reactor Inspector, Engineering Support
Section #2, Reactor Construction and Engineering
Support Branch

The meeting was held at the request of OIA to inform these Region III personnel of the purpose of the OIA investigation being initiated. These employees were informed that the investigation was directed by the Chairman in response to Thomas Applegate's allegations as described in the GAP petition to the Special Counsel of the Merit Systems Protection Board. They were informed that OIA was investigating the NRC's handling of Applegate's original allegations, to include why certain allegations allegedly were not addressed by NRC and whether Region III's investigation adequately dealt with the allegations that were addressed.

At this point ^{MR} Phillip inquired whether the investigation was not actually an investigation of his conduct. He displayed a copy of ~~that appeared~~ a draft of GAP's petition which he said makes numerous allegations against him by name. ^{MR} Keppler then inquired as to whether he should be obtaining lawyers to represent each of his employees. OIA confirmed that Phillip's name was similarly used in the "final version" of GAP's petition. OIA indicated to all employees present that they had an absolute right to have a lawyer present when they were interviewed. ~~and OIA would not~~ ^{OIA} ~~rejected Keppler's request to advise them whether OIA felt that lawyers were necessary.~~ OIA did briefly recount that GAP had verbally advised OIA that they considered their allegations to be more against the NRC than individual employees. OIA repeated that, similarly, the OIA investigation would concentrate on how the agency handled the matter.

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In response to a question about OIA's ability to investigate a matter which also alleges that the Director of OIA did not act quickly enough on the earlier allegations, the group was advised that the Chairman was aware of that aspect of the case.

The employees present raised no additional substantive questions, ~~and generally appeared willing to cooperate.~~ OIA asked each to locate any documentation of their activities such as notes which they might have so they could be reviewed during their interviews. Phillip pointed out that he had destroyed his notes prior to having heard of GAP's petition.

Interview of Gerald A. Phillip

Mr. Gerald A. Phillip, Senior Investigator, Region III, IE, NRC, was interviewed on January 14 and 15, 1981, by David Gamble, John Sinclair, and Arthur Schnebelen, OIA, at the NRC Regional Office, Glen Ellyn, Illinois.

Mr. Phillip began the interview by explaining that his first knowledge of the Thomas Applegate allegations occurred approximately February 28, 1980. Phillip recalled that he was contacted by Bill Ward, Executive Office for Operation Support (XOOS), IE, during which Ward related that he had received information from one of the Commissioner's offices who had been contacted by Applegate. According to Ward the information related to the Zimmer Nuclear Plant site and the initial determination was that there may be some significance to the information. Ward also related that Applegate alleged that there was a possible conspiracy between the site contractor and utility to cover up defective welding. Ward also stated that apparently Applegate had made previous contacts with the NRC and felt that he was "getting the run-around" because he did not see NRC taking any action.

Phillip stated that he contacted Applegate the same day and obtained some of the general information concerning Applegate's claims. Phillip also stated that arrangements were made to meet and interview Applegate for more details. Phillip recalled that after talking initially to Applegate, he (Phillip) believed that there was information which appeared to be casting a shadow on NRC inspectors. Phillip contacted Ward at NRC Headquarters in Bethesda and notified him of this fact. Ward then informed Phillip that no inspectors should be brought in on the initial phase of the inquiry and if additional personnel were required then Ward would make someone available from Headquarters. Phillip then stated that within the next few days arrangements were made to have another investigator from Headquarters meet Phillip in Cincinnati to assist on the interview of Applegate. Ward advised Phillip that he would have

Len Williamson meet Phillip in Cincinnati to help with the interview. Phillip explained that the initial plans to interview Applegate were complicated by the fact that Applegate was very cautious in his instructions and guidelines for the meeting. As he recalled Applegate would not provide his address or the address of a neutral meeting place. Applegate had advised Phillip that when he or the NRC investigators arrived in Cincinnati they should call a specific telephone number for additional instructions. Phillip stated that on March 3, after arriving at the Cincinnati Airport and driving to Cincinnati, he contacted Applegate at which time Applegate instructed the NRC investigators to meet him at an address which turned out to be a church parking lot. Phillip explained that he and Williamson arrived early and eventually were approached by an individual who identified himself as Applegate. After the initial meeting the three of them went to a rooming house that was located approximately one-half block away. Applegate advised Phillip and Williamson that he had received threats as had the landlady at the rooming house. From Phillip's observations it appeared that Applegate rented a room in a house which was owned by a policeman and his wife.

Shortly after arriving at the house Applegate took off his jacket revealing that he was wearing a firearm. Applegate began by providing some information pertaining to his background. Applegate told Phillip that he had been employed by a security firm which did work in divorce investigations. Initially he (Applegate) had been assigned an investigation involving a "pipefitter" at the Zimmer site who had been suspected of "playing around" by his wife. After the divorce-type investigation had been started, Applegate began to discover information of "time card padding" by individuals employed at the Zimmer site. Applegate informed Phillip that his supervisor, Major Cox, contacted the utility company, Cincinnati Gas and Electric (CG&E), to advise them of the discovery. Subsequent to the contact the utility contracted with the security firm for the services of Applegate, provided him with a false identity, and instructed him to look further into the time card padding. After Applegate began the assignment he began to provide the utility with weekly reports which confirmed the time card padding and disclosed a degree of collusion between certain pipefitters and security personnel at the site. Applegate explained to Phillip and provided Phillip the opportunity to review security reports which described security guards' permitting pipefitters to leave the site during working hours without "clocking out." Applegate also explained that during the same time frame (December 1979-January 1980) information began to be developed identifying the illegal sale of firearms at the site. Phillip also indicated that Applegate had surfaced information disclosing that the site supervisor, Mr. Marshall, utilized site materials and personnel to perform work on his private residence. According to Phillip, Applegate stated that Marshall's acts were dishonest, however, when he (Applegate) brought the information to the attention of CG&E the company refused to take action against Marshall. According to Applegate the condoning of these type of acts was going to have a major impact on CG&E and, in effect, put them out of business.

Applegate continued by explaining some of his concerns to Phillip about potentially faulty welding. Phillip explained that Applegate stated that Peabody-Magnaflux was radiographing welds which were questionable. Applegate did not appear to know who was responsible for these instructions: CG&E or Kaiser. However, someone had directed PM to go back and "re-examine welds." Applegate informed Phillip that either CG&E or Kaiser ignored PM's radiographs of the welds because such examinations normally only consisted of and required visual inspections and not radiographs. This according to Applegate was done at the direction of Mr. Marshall who instructed PM to "examine" but not radiograph. Phillip stated that he believed Applegate was referring to a specific shipment of pipe that had been delivered to the site in the fall of 1979 and improperly unloaded (dropped off the truck) without a quality control inspection. Applegate informed Phillip that this incident took place around the time of an NRC hearing on Zimmer. Applegate said that much controversy was generated at the hearing regarding fuel rods that were allegedly dropped; but in fact it was these pipes - not fuel rods - that were dropped.

As background, Phillip noted that Pullman-Kellogg was the supplier (vendor) and therefore was responsible for the quality assurance (QA) and quality control (QC) work related to the weld and the structure of the prefabricated pipe. As a normal procedure QC inspections are not done at the site for adequacy of the equipment or the welds. Phillip further stated that the equipment is inspected only for damage in transit and inventory purposes during a "receipt inspection" which does not include either visual or radiographic examinations of welds.

Phillip said Applegate provided him with three specific examples of welds rejected by PM but then approved by Kaiser. Applegate claimed that one was buried in concrete and he felt the utility was not going to do anything to correct it.

Another area related by Phillip pertained to Applegate's disclosure that there were "problems" with pipe flushing operations. Apparently, someone (not identified) had informed Applegate that as a result of banging pipes during the flushing procedure deleterious substances came out of the pipes and the "flushing" failed the test. The individual who observed this problem attempted to resolve it by raising the issue with his supervisor. Applegate claimed that the individual subsequently quit because there was no action taken. As the discussion continued Applegate also stated to Phillip that another individual at the site had been keeping a notebook or log on his observations at the site. Applegate did not identify the individual and could not furnish specific information, such as the content of the log or why the individual was keeping it. Phillip also recalled that Applegate mentioned having been trapped by a fire down in one area of the plant.

Applegate then identified an individual by the name of Murray who was employed by CG&E. Phillip stated that according to Applegate, Murray was "all right" meaning that he would cooperate with NRC. Applegate then proceeded to tell Phillip that he (Applegate) had provided Murray and QA Supervisor Schwiers, with information about the alleged defective welding and the specific locations of the welds in question. Phillip believed Applegate said that Schwiers had one weld tested, found it to be defective, and then related that the weld would be fixed.

Phillip stated that Applegate continued the interview by claiming that he had developed information pertaining to the time card padding and CG&E subsequently notified the Kaiser Corporation Headquarters in California of the time card cheating. Representatives from Kaiser then came to the Zimmer site and were informed that evidence was obtained that confirmed the time card padding. Applegate also advised Phillip that CG&E told Kaiser that they had an individual working undercover. Applegate then stated that shortly after this meeting the undercover operation was terminated because of two factors: (1) Kaiser was now aware that someone was working undercover for CG&E; and (2) the wife of the subject of the original divorce investigation had made visits to the site and Applegate feared that, if he were observed by her, she might reveal his true identity.

Applegate related to Phillip that he had been trying to bring the information to the attention of NRC because although the time card problem was being addressed no action was being taken about the QC issues. Applegate told Phillip that he originally contacted U.S. Senator John Glenn's office to apprise him of the information and obtain assistance. Senator Glenn's office provided him with the name of James Cummings, Director, OIA, NRC. Phillip then explained that Applegate claimed he contacted Cummings by telephone and related the information concerning the problems at the Zimmer site. Applegate also related to Phillip that he (Applegate) became frustrated with Cummings as a result of several telephone conversations with Cummings which culminated with Cummings' requesting that Applegate provide "something in writing" compiling the allegations. Phillip stated that Applegate thought about the request over a weekend and became angry. According to Phillip, Applegate stated that he was upset about the request because he (Applegate) had been incurring personal expenditures to bring the information to someone's attention and now he was requested to do more. Applegate said he then called Chairman Ahearne's office who apparently referred the matter to IE.

Phillip stated that Applegate said that he had provided the same information to the Cincinnati office of the Federal Bureau of Investigation (FBI). Phillip explained to Applegate that the type of allegations brought to the attention of the FBI were items not within the jurisdiction of NRC and would not be addressed during an NRC investigation. Phillip also advised Applegate that allegations of criminal activity at the site would have to be handled by the appropriate agency. Phillip said he explained that the cost of construction (i.e., cost overruns) also was

not a matter within NRC jurisdiction. Phillip explained that Applegate was not happy with his (Phillip's) explanation regarding the NRC's position but Applegate did not challenge the responsi.

Phillip stated that the only other remarks made by Applegate related to a variety of problems which allegedly indicated that there was mismanagement and collusion between pipefitters and security personnel. Applegate stated this demonstrated that there was not a proper commitment to building a nuclear plant. Applegate also stated that as a result of his attempting to bring information to officials of CG&E as well as others (NRC, FBI), he had been threatened, run off the road and his landlady had been harrassed and threatened over the telephone. Applegate provided additional information to Phillip in the form of excerpts from audio tapes. According to Applegate the information on the tapes indicated collusion between high level managers of the project. Applegate played portions of tapes for Phillip which he (Applegate) believed corroborated his allegations. Phillip said Applegate controlled the recorder and only played selected segments for Phillip - describing the context in which each one occurred. Phillip explained that Applegate would ~~not~~ not release the tapes because he considered them to be "insurance." Phillip said that many of the tapes were difficult to understand; in those instances, Applegate interpreted what was being said. Phillip stated that, based on what he heard on the tapes he did not hear any information which indicated there was some type of collusion or cover up going on at the Zimmer site. Phillip said that, after Applegate had skipped around on the tapes, Applegate confirmed that he had played all the important parts. However, Phillip did state there was some information on the tapes that identified three specific welds which was detailed enough to check into during an investigation. Phillip stated that in his opinion comments like 20 to 30 percent of the welds at the plant are defective were too general and needed more support before they could be investigated.

Additional information which Applegate furnished to Phillip related to the manufacture and sale of belt buckles by personnel at the site. Phillip stated that he advised Applegate that, although some of the material used in the manufacturing of belt buckles may be required for construction purposes, it was a problem which should be addressed by CG&E, the licensee, and was not within NRC's jurisdictional responsibilities. Applegate also provided information about people being fired for time card padding or cheating. As Phillip recalled, however, Applegate did not state that any of the individuals fired as a result of his investigation into time card cheating were in fact the same individuals who had attempted to raise safety issues. Phillip advised that the only documentation furnished by Applegate during the initial interview were reports submitted by the security firm (Confidential Service) who employed Applegate and were under contract to CG&E. Phillip said Williamson left the interview to photocopy these reports at the Federal Building in

Cincinnati. He said Williamson spoke with an FBI agent and obtained a copy of a February 14, 1980, FBI letterhead memorandum which confirmed that Applegate had spoken with the FBI. The letterhead memorandum also reflected that an Assistant United States Attorney had declined prosecution on the matter.

Phillip recalled that he had a subsequent telephone conversation with Applegate on March 4, 1980, during which they discussed two points: (1) what would be the best approach in trying to contact the individual who quit over the flushing operation and, (2) to confirm details about an individual Applegate mentioned previously by the name of Sellers (phonetic). Apparently Sellers was still employed at the site and had been keeping a list of defective welds rejected by PM but approved by Kaiser. Phillip said that he asked Applegate whether Sellers ever shared this list with him as Sellers said he would; Applegate responded negatively. Phillip said he also confirmed which of the Sellers brothers at PM was the one Applegate was referring to.

Phillip then stated that, after returning to the Region III office and reviewing some of the material furnished by Applegate, he (Phillip) had a discussion with Chuck Norelius, his supervisor, regarding the allegations. Phillip explained that the meeting was held to establish what issues were going to be investigated by NRC. Phillip also explained that he had already made an initial assessment of the information and had informed Applegate of which allegations were within NRC's jurisdiction. Phillip then stated that he relied on his ~~past~~ experience with the Commission and his professional experience in judging what issues were going to be investigated. Phillip continued by stating that there were additional discussions with region personnel after they determined that the welding allegations were going to be investigated. Phillip stated that Kavin Ward, an inspector, had been assigned to assist him in the investigation.

Phillip said that Bill Ward, IE Headquarters, contacted Phillip on March 13 to apprise him that Applegate had contacted IE Headquarters and informed them that the PM trailer had been broken into and some records were allegedly stolen. Phillip then called Applegate on the same day to obtain specific information regarding the incident. Phillip recalled that Applegate could not provide any information related to specific documentation which may have been taken from the PM trailer.

The interview continued with Phillip's explaining that the issues were "scoped" but initially they were probably somewhat general in nature and not very specific. Phillip also stated that the early briefing of Norelius was general, however, he (Phillip) recalled providing all available documents furnished by Applegate for review by Norelius. Phillip then stated there were subsequent telephone conversations with Applegate after Region III sent the letter describing the allegations (issues) and scope of the upcoming Region III investigation. Applegate never indicated during these conversations that he was not satisfied or that NRC was "limiting" or "too narrowly investigating" the allegations.

In response to questions about regional procedures and discussion of the initial allegations, Phillip stated that there were several discussions with different regional personnel. Phillip stated he had conversations with Messrs. Norelius, Kavin Ward, Vandel (Project Inspector), Danielson (Kavin Ward's supervisor), and perhaps, Fiorelli and Knop. As Phillip recalled the discussions were general in nature and not too detailed. Phillip stated that he did not recall discussing the matter with James Keppler, the Regional Director. Phillip did state that Len Williamson's (assigned from IE Headquarters) involvement was very limited and as a result he was not requested to write or document any information obtained during the initial Applegate interview.

Phillip explained that he did not believe there was any advanced notification made to the Zimmer site and was about 95 percent certain that it was a "special unannounced investigation." Phillip stated there was no fixed policy on announcing investigations, however, probably most are unannounced. Phillip indicated that he did not believe that a licensee could alter "poor performance" rapidly enough to affect investigations. Phillip continued by stating that he and Kavin Ward initially went to the Zimmer site and had an entrance interview with Schwierts, the site QA Manager. Phillip was not sure how specifically they identified the allegations to Schwierts; they probably identified them as QA/QC problems without specifying the area of welding. After meeting with Schwierts they interviewed Alan Sellers, QC Supervisor for PM who stated that he was unaware of any list illustrating welds rejected by PM which were subsequently accepted by Kaiser. As a result Phillip and Ward decided to inspect a representative "system of welds" in order to determine whether or not there was a problem with welds. Phillip recalled that Ward was familiar with welding at the Zimmer site and therefore asked PM to pull radiographs and "reader sheets" to determine how many PM radiograph "rejects" were overruled by Kaiser and subsequently approved. Phillip stated that they checked the records for approximately 99 weld radiographs and only two were overruled. Phillip explained that in both cases Kavin Ward concurred with Kaiser's interpretation of the radiograph.

Concerning the three specific welds that Applegate alleged to be defective, Phillip stated the radiographs were reviewed by Ward who discovered that problems with the radiographs and/or documentation existed but had been identified in a comprehensive review of PM radiographs conducted by another firm, NES. Phillip advised that Ward could better answer specific questions regarding the welds.

Phillip then stated that he did not check into the "break in" of the PM trailer and, in fact, did not know if the trailer was broken into or if documents were taken. Phillip noted that the licensee is responsible for maintaining the record copies of all documents, so PM's copies were not the official ones.

Noble *Mark*

Phillip stated that at that time he also attempted to address the allegation involving alleged problems in the "pipe flushing" procedures. Phillip advised that the allegation arose from the initial allegations made by Applegate; however, after contacting the individual who had knowledge of the problem (Tyner), he (Phillip) was unable to obtain any specific information. The individual did inform Phillip, however, that the "hydro test" was run and the system was modified after the test thus invalidating the test. This statement resulted in an inspection which disclosed that the circumstances, as described by the individual, were factual. Phillip then stated that the "hydro test" was going to be rerun with an inspector present.

Phillip explained that the next allegation which was addressed had to do with the handling of five "spool pieces" (pipe). According to Phillip, at the time that he and Ward arrived on site these pieces of pipe were supposed to have been in a "hold status," however, they were not "tagged" as such. The spools were shipped by the vendor, Pullman-Kellogg, and were "unloaded" at the site by "dropping them off the truck onto the ground." Phillip stated the pipe was approximately 12 inches in diameter and over a half-inch in wall thickness. Regarding the radiographing of the pipe, Phillip explained that the pipe was radiographed by PM for "information purposes" and not as part of a regulatory requirement or appropriate test procedure. Phillip stated that CG&E and/or Kaiser were therefore committing to radiographs and documentation as it related to the condition of the pipe when a visual inspection would have been sufficient. Phillip noted that PM found "rejectable indications;" but they did not actually reject the pipe because only Kaiser could accept or reject. Subsequently, several Nonconformance Reports (NR) were issued and ultimately an NR was improperly written which resulted in some of the pipe being released from the warehouse and installed. However, one remaining NR was written which still kept the problems with the pipe as an open item of nonconformance. Therefore, Phillip did not believe there was any type of cover-up; he said that Kaiser, by installing the pipe at this point, was assuming the risk that the pipe might later be found to be unacceptable. Phillip then stated that none of the individuals interviewed believed that there was a "hardware problem," only a "paperwork problem." Phillip continued by stating that apparently the QA Supervisor, Schwiers told someone to "line through" and void the NR. Phillip stated he interviewed Schwiers regarding the alleged instruction at which time Schwiers denied giving anyone instructions to line through items identified on an NR. Phillip concluded this portion of the interview by stating that he did not take any sworn statements or write reports of interviews and did not believe it was necessary.

Phillip continued by explaining that, even after he left the Zimmer site he thought that maybe all the work had not been done - although he had told CG&E that there was one item of noncompliance. After returning to Region III Phillip discussed the results of the investigation with Norelius and also told Norelius that he had some concerns and believed

that more work was going to have to be done. Phillip then stated that he returned to the site several weeks later with another NRC inspector, Tom Vandell, to make further inquiries regarding the pipe spools. Phillip stated that the pipe was checked and they concentrated on the "paperwork problem."

Phillip recalled that he received a call during the first day or so of the investigation from another investigator in Region III, Jim Foster, who advised that Applegate had called the Region and explained that he (Applegate) was contemplating going to the PM people and possibly the newspapers. This occurred about April 7, 1980, according to Phillip. Phillip then stated that he contacted Applegate and told him that he was free to go to the press, however, it eliminated any chance of Applegate's maintaining his confidentiality. Phillip believed that Applegate did then go to the press, probably the Chicago Sun Times.

In response to a question regarding procedures for identifying individuals contacted and reported in IE investigations, Phillip stated that the procedures do call for making an identification key. Phillip then stated that there was no identification key for his investigation.

Phillip said that he made one attempt to contact an individual named "Johan" who Applegate claimed was keeping some type of journal. Phillip said Resident Inspector Daniels unsuccessfully tried to locate Johan through the Zimmer switchboard. Phillip said he did not pursue the matter further because Applegate did not supply any specifics of what the journal contained.

Phillip continued by explaining that shortly after Applegate "went public" a reporter from Channel 9, Cincinnati, contacted him to obtain information about the investigation. The reporter asked if he could interview Phillip on the site or at the gate. Phillip had a discussion with Schwiers, QA Manager, CG&E, who stated that they would permit Channel 9 to come on the Zimmer site for an interview in Resident Inspector, Daniels' office. Sometime later, Mr. Altemuehle, CG&E public relations officer, asked Phillip if he would attend a press conference downtown. This apparently was done to provide the other representatives of the media an opportunity to learn about the results of the investigation at the site and not just provide a story for one station (Channel 9). Phillip then explained he went to the Resident Inspector's trailer and was interviewed by Channel 9. Later the same day he (Phillip) went to downtown Cincinnati to attend the press conference. Approximately 20-25 reporters were in attendance and the two main points of interest were the welds on the pipe spool pieces which he stated were "OK" and that the licensee was going to be cited for an item of noncompliance relating to records and violating "hold" procedures. As Phillip recalled, one reporter asked about drugs and alcohol on the site and the fact that workers were coming to work drunk or intoxicated. Phillip replied to

the question by explaining he did not know of the allegation, as stated. When asked whether NRC was concerned about this, Phillip replied that it was the employer's concern because, even if a drunk welder made a bad weld, the licensee's QC inspection program was designed to catch faulty workmanship. Phillip stated that Mr. Borgmann, V.P. of Engineering, CG&E, and Mr. Altemuehle were also involved in the press conference.

Phillip explained that on May 7, 1980, he had several different telephone conversations with Applegate, Bill Ward (IE Headquarters), and Rita Giordano (reporter for the Cincinnati Inquirer). Apparently Applegate had new information (tapes) which he claimed indicated that CG&E had lied to NRC and that there was a criminal conspiracy. According to Phillip he contacted Applegate who explained that he had evidence in the form of taped conversations with individuals which showed there was a conspiracy on the part of the licensee and Kaiser to prevent PM from disclosing defective welding at the plant. Phillip stated that he decided that if Applegate, in fact, had this type of information it would be better to interview Applegate at an FBI office. This apparently was concurred in by Bill Ward and Norelius. Phillip explained that he then talked with Jim Donahue, Region III's Chief of Safeguards and requested that he make arrangements for an interview date. Donahue then contacted Special Agent Robert Buckley, Atomic Energy Desk, Chicago Field Office, FBI. Phillip stated that the interview took place in the Dirckson Federal Building in downtown Chicago at which time Applegate presented the "tapes" and made his allegations. After listening to the tapes Buckley advised Applegate that he did not hear anything which constituted a violation of the Federal criminal statutes. The taped conversations were made by Applegate of telephone conversations he had with representatives of PM, including the president of the company, Mr. Aldredge.

Phillip then stated that Applegate was not satisfied with the results of the interview and the fact that the FBI did not accept his (Applegate's) claim that the tapes were evidence of criminality. Phillip also stated that Applegate was complaining of not having any money or transportation to the airport for his return flight to Cincinnati and requested FBI or NRC transportation. Phillip stated Applegate's request was denied. At the close of the interview Buckley advised Applegate that the NRC would provide him with any additional information obtained and a copy of the NRC report when the NRC investigation was concluded. Phillip also told Applegate that he would further review the taped conversations (which Applegate provided) and interview Aldredge.

Later the same day Phillip explained he was called by a reporter, Rita Giordano, wanting to know what happened at the meeting with the FBI. Phillip stated he provided Giordano basically the same information described above. Phillip went on to explain that he then made attempts to contact Aldredge and eventually interviewed him on May 20, 1980. The next contact with Applegate came on June 7, 1980, at which time Applegate stated to Phillip that he (Applegate) was "not sitting still." Phillip

advised Applegate that a report would be coming out and NRC would provide him a copy.

In response to questions about welding problems at the Zimmer site which were described in Applegate's "Confidential Report" compiled during his contract assignment at the site Phillip provided the following responses.

Phillip explained there were individuals named in Applegate's reports who may have had knowledge of the welding problems; however, Phillip did not believe that it would have been fruitful to "track people down to obtain weld information" because Region III was already aware of welding difficulties and numerous NRC inspections had been conducted. Phillip added that the specific welds in question could be checked by reviewing radiographs. Phillip also noted that individual welders would not be in a position to know what subsequent actions were or were not taken to correct deficient welds.

Phillip was then provided an opportunity to review the list of allegations described in the petition to the Special Counsel. Upon reviewing the allegations Phillip provided a response to each allegation identifying allegations which had been previously addressed during either his investigation or other Region III efforts and those which appeared to be new allegations.

Phillip said there was no explicit IE policy on how to write the "details" section of investigative reports. He said the investigator uses his discretion to prepare the report in the way which best presents the information to the reader. Phillip said that although sometimes the report is a series of interviews, he often feels it is better to organize the report by subject matter. He said that, when this is done, there are no documents which comprehensively summarize what each witness stated: the report presents what each witness said (identifying them only by title) on each issue. Phillip further stated that he believed that investigations of allegations are best reported as follows: (1) state the allegation; (2) list details provided by the allegor; (3) state the findings; and (4) list details supporting the findings.

Phillip said he did not take any written statements in this case. He said it is up to each investigator's discretion to decide when to have a witness or allegor sign a statement. Phillip recalled only one occasion when he asked an allegor to sign a statement containing his allegations. Phillip doubted that this approach would help pin down the allegations or help the allegors be more accurate. Phillip said that he generally does not obtain statements from any witnesses unless he feels he will be receiving conflicting significant information. Phillip said the only time the thought even entered his mind was in connection with the circumstances of the notation being crossed off the nonconformance report which allowed the five spool pieces to be installed. Phillip noted however that the consensus, which he believed also included Norelius' view, was that this crossing off was not that significant because the problem was still identified in the system; therefore it turned out that statements were not needed.

Phillip said that having IE investigators administer oaths to witnesses is a relatively new idea. He said that oaths are a useful tool, however they are not appropriate for use in every situation. Phillip said oaths have been used only sparingly. Phillip noted that IE investigators do not have general authority to administer oaths. He said that investigators must receive a written delegation of authority to administer oaths in each case from the Regional Director and the delegation must receive the advance concurrence of the Office of the Executive Legal Director in Headquarters. Phillip believed this was a rather cumbersome approval process if it is really intended that they use oaths. Phillip also noted the practical problem that an investigator does not know what the situation is until he gets into the field, yet the authority to administer oaths must be requested in advance.

Phillip said that the IE Inspectors Manual is a training tool for new personnel. Phillip said he wrote Chapter 8 which addresses investigations. Phillip's attention was directed to paragraph 1 on page 6 which states:

Every complaint or allegation received, regardless of the source or the avenue of communication involved, must be evaluated and documented. There are instances wherein the complaint or allegation obviously has no substance and it comes from an individual suffering from a mental disorder. Even in those cases, at least a memo to the files should be prepared documenting the contact, the general content of any communications and the basis for the conclusion that the matter need not be pursued further.

Phillip responded that this passage means that investigators cannot dismiss entire contacts without appropriately documenting it; however, it does not require itemization of specific allegations and how each one would be handled.

Phillip said that people outside the nuclear field generally do not realize the number of checks and balances that exist at nuclear power plants. He said that as an example it would require a lot of collusion to get all the required signatures on a false document such as a NR. Phillip stated that, although review of documentation is necessary, it is not true that IE inspectors limit their inspections to "paper reviews." He said it was more than common for inspectors to look at the hardware itself. He also pointed out that, under the IE modular inspection program, the licensees notify IE of when certain tests and activities are to be performed and IE inspectors then witness them. Phillip said that in this investigation Kevin Ward reviewed radiographs, which Phillip considered to be "hard evidence." Phillip said that IE does not have independent capability to perform its own radiographic testing to double-check the licensee's radiographs. Phillip did not consider this to be a problem because the licensee would not have had time to substitute radiographs after Ward and he had randomly selected the system they intended to review.

Interview of Welding Inspector

On January 27 and 28, 1981, Mr. Kavin D. Ward, Inspector, Region III, IE, was interviewed by Arthur Schnebelen, Special Assistant and John Sinclair, Investigator, OIA. Mr. Ward was advised that OIA was reviewing the IE investigative effort which was conducted as a result of the allegations raised by Thomas Applegate of construction deficiencies at the Zimmer construction project.

Ward stated that the investigation he did with Gerry Phillip regarding the Applegate allegations was only one of 52 trips that he made to different sites during 1980. Ward recalled that he was informed of the general allegations by Duane Danielson, Chief, Materials and Process Section and told to discuss his (Ward's) participation in the upcoming investigation with Phillip. Ward stated that most of the specific information regarding the allegations were discussed on the plane trip and on the way to the Zimmer site in Moscow, Ohio. Ward continued by stating that he could not recall any "real meeting" which may have taken place at the Regional Office for planning purposes and believed that he was involved in only two areas of the investigation. This included the radiographs and testing techniques utilized to test welds at the site and inspection of five pieces of pipe (spools) which had been "dropped" from a truck when they were delivered to the site.

As background Ward explained that he had made numerous inspections at the Zimmer site and, in fact, had conducted a "pre-service inspection" which included an independent review of welding. Ward stated that in 1978 he had looked into several "turnover welds" which had been accepted by the licensee. Ward further stated that welds that are "turned over" are considered to be "accepted" welds. Ward stated that at that point NRC would inspect the weld documentation which presumably would no longer have any problems and any discrepancy would have been resolved. Ward continued and explained that after checking and reviewing approximately 40 radiographs and related documentation he discovered 17 which exhibited a variety of discrepancies. As he recalled there was one item of noncompliance identified which pertained to a violation of the American Society of Mechanical Engineers (ASME) Code, Section III. Ward ~~also~~ stated that a firm by the name of Peabody ~~was~~ ^{has been} contracted by Kaiser Engineering, Inc. (KEI) to do the radiography work. The problem originally identified by Ward regarding the radiographs indicated there may have been a problem with the quality of Peabody's radiography program. However, Ward continued by explaining that on a recent inspection at the site (January 1981) he discovered a similar problem with the radiography being performed by a new firm, NES. The inspection included the review of 20 radiograph packages that had been accepted, illustrating that welds were satisfactory. Ward's inspection disclosed that four of the radiograph packages contained discrepancies. Based on this he notified the licensee that discrepancies still existed in the radiography program.

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Following a discussion on the information describing three specific welds alleged to be defective by Thomas Applegate, Ward stated that he believed the investigation report properly identified the work which was done to resolve the allegation. Ward explained that the report was sufficiently detailed and probably contained more information than an inspection report would. He (Ward) thought Phillip had done a thorough job of reporting the information. Ward stated that the language which indicates there were "some discrepancies" identified pertained to the radiograph review. In fact the information in the report is a result of a review conducted by NES inspectors. Ward stated that he reviewed documents and radiographs which had already identified "discrepancies." He (Ward) did state that the report language does not address whether or not there were defective welds: it only discusses improper radiograph techniques/procedures. Concerning the one weld identified as K-811, Ward responded by stating that he did not know the date that the described weld had been cut out and replaced by a new weld. Ward also indicated that he believed that it probably would have been better to identify, by date, when the weld was replaced in order to respond to the allegation.

Ward then volunteered some information concerning the procedures and philosophy of the NRC inspection program. According to Ward when an inspector identifies a "problem" during an inspection and is assured that the problem is documented in the licensee's system, then IE will be content to "watch it" until it is resolved. Ward stated the exception to this policy would be if a piece of equipment was going to be installed in an area no longer accessible if construction continued, such as, if it was going to be placed in concrete. Ward explained that "as long as the plant is not operating and the problem has been identified, it is not our (IE') position to tell them (licensee) how to resolve it." Ward was questioned as to whether some time limit would or could be placed on a licensee to resolve "deficiencies" that IE was watching. Ward stated that generally no action, in the form of issuing an item of noncompliance, is taken until the contractor or licensee has accepted or certified to NRC that all work, inspection and documentation, has been completed and "signed off." Ward also stated, in response to questions concerning 1976-1977 welding that still has not been "signed off," that IE will continue to monitor or track the deficiencies until they are resolved. When asked how long that effort (monitoring) would continue he (Ward) stated it could be all the way to the hearings for the Operating License. Ward stated that he could understand how the alleger may have questions about items identified in the investigation report but he explained the report does indicate that the discrepancies which were identified in the report were considered unacceptable and would be checked in the future by the NRC inspection program.

Ward explained that the five pieces of pipe (spools) which had been "dropped" off the back of a truck unloading at the Zimmer site were very large pieces of pipe and were therefore not likely to be damaged from rolling off a truck. According to Ward the pipe was about 12" in diameter

and over a half-inch in wall thickness. Ward stated the difficulty with the pipe arose in the instructions given by either Kaiser or CG&E to radiograph the ends of the pipe for possible damage. Ward stated that, because of the type of "cap" which was welded to the ends of the pipe, it was not possible to determine the conditions of the welds through radiography. Ward then stated that ASME procedures require that ultrasonic testing be conducted. The proper methods would have been magnetic particle tests or dye penetrant tests. Ward then explained why radiography would not produce the required test results.

Ward stated that he did not recall whether he had reviewed all documentation related to the welds.

Ward was reinterviewed on January 28 in the presence of Gerry Phillip and again asked if the weld documentation, including the radiographs, had been reviewed. Ward could not state categorically that he had reviewed the radiographs and reader sheets but, after consulting with Phillip, he (Ward) stated that he probably had reviewed the radiographs. Ward reiterated that, because the "final acceptance" had not been made, no further action had to be taken by NRC. Ward and Phillip both explained that it appeared worthwhile to include information in their report regarding previous inspections and knowledge of NRC about welding documentation problems at Zimmer.

Ward stated that Pullman-Kellogg, the pipe manufacturer, had come to the Zimmer site to conduct ultrasonic testing on the stipulated pipe spools. As a result of the tests the welds were determined to be acceptable. In conjunction, Peabody conducted ultrasonic tests and also stated the welds were acceptable.

Ward also explained that he had not intended to identify the problems for the licensee. According to Ward that would be doing the licensee's job. Ward also stated that he had been told by his supervisor not to identify problems to CG&E and "not to get in the middle" during the investigation.

Interview of Charles Norelius

Charles Norelius, Assistant to the Director, Region III, IE, was interviewed on January 26, 1981, by Arthur Schnebelen, David Gamble, and John Sinclair of OIA.

Norelius recalled that the allegations from Applegate came to Region III via IE Headquarters. Norelius could not recall exactly how they came in but he believed Applegate originally presented them to OIA. Norelius located a reference in the Region III working file on this investigation that the allegations were received on February 28, 1980. Norelius could

not remember whether Region III received the allegations by memorandum or by telephone. He said memoranda are usually from either Victor Stello (Director, IE) or Dudley Thompson (then Executive Officer for Operations Support, IE Headquarters). Norelius said telephone calls from IE Headquarters were usually made to him. He said Thompson usually made the calls, however, William Ward (Chief, Headquarters Investigations Branch under Thompson) could have called directly.

Norelius said Gerald Phillip was his senior investigator and he relied upon Phillip to assign cases to individual investigators. He said that when he and Phillip discuss case assignments, they usually reserve to Phillip and James Foster (the next most senior investigator) those cases that are more complex or have the potential for more visibility. Norelius could not recall at what point he and Phillip discussed Applegate's allegations.

Norelius said that, although he was "hazy" on this point, somewhere along the line he got the perception that trouble was possible in this case. He was sure he had this perception at least after Phillip briefed him about his interview of Applegate. Norelius did recall Phillip's description of his telephone call with Applegate to set up their interview. He remembered Phillip's saying something to the effect of "Here's a guy who claims that there's some sort of thing that sounds significant. He believed there was a cover-up regarding these welds and he has tapes to prove it." Norelius recalled that Phillip's reaction was that, if Applegate really had what he claimed he had, it may be something significant. Norelius said that based upon that assessment, they moved quickly on this case.

Norelius said Investigator Len Williamson (then with IE Headquarters) accompanied Phillip for his interview of Applegate. He acknowledged that Headquarters participation in investigations was unusual but it was done in this case to encourage some interchange between the Region and Headquarters for developmental purposes.

Norelius said his file reflects that Phillip and Williamson interviewed Applegate on March 3, 1980. On his return Phillip informed Norelius that Applegate did not have everything he initially said he did. Phillip had narrowed the allegations to a few issues. Norelius said that he and Phillip discussed all the allegations, but not at length; he said that the volume of work precludes his covering all the details so he relies heavily on his investigators - especially the senior investigators like Phillip. Norelius particularly recalled from Phillip's briefing that Applegate's allegations included items such as the fabrication and sale of belt buckles and time card cheating. Norelius did not recall ever seeing Applegate's "confidential" reports.

Norelius imagined that Phillip probably would have consulted with Regional construction personnel, such as Gaston Fiorelli, about the allegations. Norelius said that he (Norelius) most likely would have brought the

allegations to the attention of Regional Director James Keppler. Norelius said Keppler meets with Regional management at 8:00 every morning and one of the things he always mentions to Keppler are the important allegations that have been received. Norelius said that the importance he attributed to the allegations can be ascertained from the promptness of their response in light of their heavy workload. Norelius further speculated that he probably similarly would have informed Keppler that Phillip's interview of Applegate indicated that the allegations may not be as serious as they originally thought.

Norelius said that, although he did not give particular instructions to Phillip, their general procedure for the handling of allegations involves three parts: (1) interview allexer to determine what is alleged and what is the basis for the allegations; (2) review the allegations to get a clear understanding of what is to be investigated and why (this analysis eliminates allegations that are (a) not safety-related or (b) too general to permit investigation); and (3) conduct the subsequent investigation. Norelius said there is no IE policy requiring documentation of concerns that are raised by an allexer. He said that, because of their workload, they meet with allexers to clearly define what will or will not be investigated. Norelius said that for example they routinely inform allexers that NRC is interested in safety-related items but because nuclear power plants are run by privately-owned utilities, allexers should provide information on costs (e.g., overruns) to state regulatory agencies. Norelius said that, although IE sometimes investigates harassment of individuals, they normally refer such allegations to the U.S. Department of Labor. Norelius believed that Phillip would have informed Applegate of which of his allegations were within NRC jurisdiction to investigate. Norelius said that in the last year Region III has been sending letters confirming what would be investigated so there would be no misunderstanding. Norelius showed OIA a letter dated March 11, 1980, from Phillip to Applegate which described the three issues Region III intended to investigate. Norelius noted that they received no response from Applegate indicating any criticism of the intended scope.

Norelius said that when addressing allegations the Region normally looks at problems broadly to assure that they are addressed. He said, however, that when a very general allegation is received, e.g., in this case regarding the welding, the Region cannot conduct an in-depth review of a plant's entire (welding) program. To cope with the allegation, they usually try to pin down specific examples and the decision to broaden the inquiry is based upon what develops. Norelius noted that he discussed the scope of the investigation with Phillip after his first visit to the site and concluded that additional investigation was needed.

Norelius recalled that Tom Vandel, who he believed was the Zimmer Project Inspector, accompanied Phillip on one visit and Kavin Ward, one of the Region III nondestructive examination personnel, accompanied him on a later visit. Norelius remembered their speaking of a noncompliance for the installing pipes that should have been "on hold." Norelius recalled

discussing with Phillip the significance of this item and whether escalated enforcement action was warranted (Norelius explained that he was the Region III enforcement coordinator). Norelius concluded that this situation did not warrant stronger enforcement action because the pipes were still identified in the plant's system as nonconforming items.

Norelius recalled an allegation by Applegate after the investigation was underway that there was a cover-up involving Peabody-Magnaflux (PM). Norelius said that Phillip, James Donahue (also with Region III), and an FBI agent interviewed Applegate jointly about this allegation. He understood Applegate played a tape recording for the interviewers and they concluded there was not much of a case. Norelius said he later listened to the same tape and he did not read the same significance into the conversation that Applegate did. He said that the tape was of conversations Applegate had with PM personnel; however, Applegate did most of the talking but attributed his statements to the PM personnel.

Norelius said that he only recalled Region III using NRC's subpoena authority on one occasion. He did not see any need for subpoenas in connection with IE investigations. Norelius said IE investigations are primarily to determine facts regarding compliance with NRC's regulatory requirements; he said the detection of criminal violations, for which he believed subpoenas would be useful, is only a byproduct of IE investigations.

Norelius said the Region has taken signed, unsworn statements from witnesses for some time. He said this was done before they ever had authority to administer oaths and it is still done now even though they can use oaths. Norelius said the decision as to when to use signed, unsworn statements is left to the investigator's discretion. He said that an example of when they would be used is when specific details, such as a time sequence, are needed in a witness' own words.

Norelius said oaths are a useful tool, but he would not advocate their use in all investigations. He said that, although oaths have been used more in the preceding six to eight months, Region III's normal practice is to not administer oaths. Norelius believed that IE investigators should be skilled in identifying the potential for criminality in their investigations, but he did not feel it was that necessary for IE investigators to administer oaths because they do not conduct criminal investigations. Norelius felt, however, that oaths would be appropriate if IE investigators were receiving conflicting information or were not receiving the whole story.

Interview of Chief, Reactor Construction and Engineering Support Branch

On January 26, 1981, Gaston Fiorelli, Chief, Reactor Construction and Engineering Support Branch, Region III, IE, was interviewed by Arthur Schnebelen.

Special Assistant and Investigators David Gamble and John Sinclair, OIA. Prior to any questioning Mr. Fiorelli was advised that OIA was reviewing the IE investigative effort which was conducted as a result of the allegations raised by Thomas Applegate concerning construction deficiencies at the Zimmer construction project. Fiorelli advised that he had some knowledge of the allegations brought by Applegate and was involved in some portion of the investigation to provide technical support. Fiorelli recalled that Gerry Phillip of the investigative staff has been given the lead on the assignment. He, Fiorelli had been contacted by the investigative staff about providing technical support for Phillip. In this particular investigation Kavin Ward was assigned to assist Phillip because there had been allegations concerning welding and Ward was the person most familiar with welding problems at Zimmer. Fiorelli explained that he could not recall specifically any dates on which briefings or meetings were conducted regarding the allegations, however, he was sure that Phillip had provided him with information describing Applegate's role at the site. According to Fiorelli, Phillip stated that Applegate had been hired by CG&E to identify time card falsification which ultimately led to identification of possible safety issues. ✓

Fiorelli believed that as the investigation continued at the Zimmer site Phillip had some private conversations and also a group meeting with regional personnel regarding the problems identified at the site. Fiorelli could not recall specifically who attended the meetings, but he was sure that the Region III procedures required that a meeting would have taken place. Fiorelli surmised that it probably would have been some time after the inspection (investigation) at the site was completed. Fiorelli also stated that individuals who were probably in attendance at regional meetings were Kavin Ward, Harry Danielson, Tom Vandell and Dick Knop. Fiorelli advised that Knop was the section chief responsible for Zimmer.

At the conclusion Fiorelli stated that IE investigations are considered a "very sacred activity" and the line groups are very sensitive to avoid any interference with investigative matters.

Interview of Chief, Materials and Process Section

On January 28, 1981, Mr. Duane H. Danielson, Chief, Materials and Process Section, Region III, IE, (O)NRC, was interviewed by Arthur Schnebelen, Special Assistant, and John Sinclair, Investigator, OIA. Mr. Danielson was advised that the purpose of the OIA investigation was to determine the adequacy of an IE investigation which was conducted in 1980 responding to allegations made by Thomas Applegate. ✓

Mr. Danielson began the interview by explaining that the regional organization structure was such that different branches would provide assistance to the investigative staff during an investigation, depending on the specific area being looked into and what expertise was required. Danielson then stated that during the particular investigation in question one of

the members of the team, Kavin Ward, was from his unit. Danielson continued and stated that it was typical for Phillip to come directly to him and request assistance. The situation or allegation generally dictated whether or not there was a need to assign someone to an investigation. Danielson then explained that once someone is assigned to an investigation, there is little further involvement from a management standpoint unless the investigation develops what is considered a major problem or finding. In the case of additional problems it would be necessary to have more management meetings among regional personnel. Danielson further explained that usually the investigations and reports are completed and a copy is sent to him for information and review. Danielson stated that he would read it for the information contained but would not scrutinize or question the conclusions.

Danielson responded to a question concerning directions given to inspectors who are assigned to assist investigators by stating that he instructs his personnel "to not get in the middle" and to only assist the investigator. Danielson also stated that he did not want the inspector making any evaluations. In the case of the stipulated IE investigation he (Danielson) would have advised Ward not to make any evaluations concerning the welding and not to offer any advice to the licensee. Danielson then stated that he believes that NRC should not take a position during inspections and should not provide instruction to the licensee. Danielson continued by stating as long as NRC is aware that there is a problem and the licensee has been apprised of the deficiency then NRC should monitor the licensee's effort until the problem is resolved. In response to questioning, Danielson stated there is no time frame for making a licensee perform corrective work. Danielson stated it could be 30 days to several years. Danielson stated that items ~~are~~ discovered to be unacceptable are usually kept as an "open item" by the inspector. Danielson concluded by stating that he could not furnish any additional information regarding the described investigation. ✓

Interview of Chief, Projects Section

On January 23, 1981, Richard C. Knop, Chief, Project Section, Region III, IE, NRC, was interviewed by Arthur Schnebelen, Special Assistant and John Sinclair, Investigator, OIA. Prior to the interview Mr. Knop was advised that the OIA investigation was initiated to determine whether or not an IE investigation conducted by Region III at the Zimmer Nuclear Station had sufficiently addressed the allegations brought by Thomas Applegate during early 1980.

Mr. Knop stated that he did not believe that he had any involvement in the planning sessions concerning the investigation at Zimmer. Knop then stated that the investigators and the investigative group have the lead in making decisions regarding investigations. Investigative efforts, according to Knop, may touch on or address areas which have been inspected or looked into in the past by IE; therefore, it is necessary to have investigations take the lead and provide more independence. Knop recalled that

Phillip informed him (Knop) that Applegate had made several allegations and the investigative effort was going to focus on three allegations. According to Knop this seemed consistent with information that had been received by Phillip. Knop stated that he believed there was an allegation about three defective welds and another allegation concerning five pieces of pipe which were delivered to the Zimmer site and dropped from the back of a truck. Knop could not recall the third area which was to be investigated. Knop explained that the main concern of the inspection effort was to identify welds or radiographs that are questionable and determine if there is a system to "track" the deficiencies. Knop also explained that once the deficiencies were identified there would have been no need to pursue the matter further. Knop could not furnish any other information regarding the investigation conducted by Region III.

Interview of Chief, Security Section

James F. Donahue, Chief, Security Section, Safeguards Branch, IE, Region III, was interviewed on January 15, 1981, by Investigators David H. Gamble and John R. Sinclair, OIA.

Donahue said his only contact with either Thomas Applegate or Gerald Phillip's investigation of Applegate's allegations was in connection with a meeting Donahue set up among himself, Phillip, Applegate, and Robert Buckley (head of the Atomic Energy Desk of the FBI's Chicago office). Donahue believed that Applegate had requested the joint meeting with the FBI based upon certain criminal acts which Applegate believed had been committed by individuals at the Zimmer Nuclear Power Station. Donahue said he was the one who set up the meeting because he was Region III's prime contact with the FBI. Donahue said he accompanied Phillip to the meeting only to introduce everyone and then to observe.

Donahue could not recall all the substance of what Applegate related at the meeting. He did recall that Applegate played a tape on a miniature tape recorder - explaining who each speaker was and what they were saying. Donahue said Applegate felt these recordings of conversations that he had had with others provided evidence of some criminal acts. Donahue said Applegate's portion of the conversations struck him as consisting of leading questions. Donahue said Buckley advised that, if there were any Government subsidies involved - either state or Federal, Applegate should pursue his allegations under the provisions of the "White Collar Crimes Act;" otherwise he did not see any FBI jurisdiction. Donahue recalled that Buckley further informed Applegate that he did not feel the tapes provided sufficient evidence to support his allegation of a criminal conspiracy. Donahue believed that Buckley was a bit "miffed" at NRC for bringing Applegate there; Donahue knew that the meeting drew Buckley away from some important work on terrorist activities. Donahue also understood that Buckley had contacted the FBI's Cincinnati office and heard of their earlier contact with Applegate.

Donahue said Applegate questioned why Phillip had not talked to more individuals in his investigation. Applegate named several individuals but Donahue could not recall their names. Donahue recalled that Phillip responded that it was unnecessary because he had resolved the issues.

Donahue said it was also clear that Applegate had a hard time accepting the difference between what NRC was responsible for and what he felt NRC should be looking at. Donahue believed that Applegate felt that IE investigators should be criminal investigators who looked at all criminal violations from petty thefts through false documents. Donahue said Phillip explained to Applegate that NRC had no jurisdiction on matters such as time clock violations and industrial property protection. Donahue said Phillip had to repeat this explanation several times and it was clear from the discussion that this was not the first time Phillip had told Applegate this.

Donahue said Applegate felt the Government should have been " beholden to him for providing a great service." He said that, for example, Applegate thought the Government should have paid for his trip from Cincinnati to Chicago and the FBI should have transported him to the airport.

Donahue said he has known Phillip a long time, their careers having dovetailed. Donahue had only the highest praise for Phillip's judgment and investigative abilities. Donahue said Phillip is considered to be the "Dean" of IE investigators.

Interview of Regional Director

On January 29, 1981, Mr. James Keppler, Director, Region III, IE, was interviewed by Arthur Schnebelen, Special Assistant and John Sinclair, Investigator, OIA. Mr. Keppler was apprised of the nature of the investigation and requested to furnish information regarding his role or involvement in the investigation conducted by Gerald Phillip at the Zimmer Nuclear Power Station during 1980.

Mr. Keppler explained that his recollection of the initial investigation was limited. According to Keppler he did not actively participate in the decision-making process as to what information provided by the allegor, Thomas Applegate, was going to be investigated. Keppler stated that the regional procedures would not normally require a meeting with the investigative staff to determine what allegations would or would not be addressed. Routinely there is a weekly meeting involving management and personnel involved in various specialized activities, including investigations, during which he would receive reports on the status of a particular activity. Keppler continued by explaining that the decision making process pertaining to allegations received by the investigative staff would normally only require decisions to be made within the investigative unit and their immediate supervision. Keppler added that the particular in question investigation and resulting investigative report is fairly typical of how all allegations are investigated and

documented by the region. Keppler also stated that he was not sure that allegations or reports would be handled any differently in the future.

Keppler then stated that investigations concerning allegations at construction sites are different than those relating to facilities which have operating reactors. The distinction is that construction projects have so many more people involved in various phases of construction at the sites. A problem arises in deciding how much investigative work is required to resolve the allegation and whether the investigative effort is properly scoped. In the investigation in question, Keppler recalled that there was an allegation of construction or craft personnel reporting to work drunk and drinking on the job. According to Keppler this particular item or allegation was not addressed because it was a general-type allegation and not supported by much in the way of specific information. Keppler then stated that he was not certain that a general allegation such as this would be taken and investigated or investigated in-depth. The problem is basically a licensee management problem with NRC's interest being in whether or not there was a health and safety impact related to the work. Keppler explained that the purpose of the QA program is to ensure that any unacceptable work does not remain uncorrected. NRC inspects against the QA program to determine if the work is being done correctly.

Keppler also stated that he believed Region III investigative procedures required that an alleged be informed of what allegations or issues were within the jurisdiction of NRC and were going to be investigated. Keppler added that it was also a regional policy to recontact the alleged at the conclusion of the investigative effort to provide him with an explanation of what had been identified or resolved. In some cases reports of investigation were sent to the alleged after the completion of the work.

Mr. Keppler was questioned as to why ~~of~~ the investigative team did not identify the dates of weld repairs or report descriptions of discrepancies identified in the radiography review. Keppler responded by stating that he was not aware that the welding allegations had not been thoroughly addressed and reported. OIA explained that one of the main issues which the IE investigation was actively pursuing had to do with alleged defective welds being initially accepted by Kaiser. In order to support that allegation Applegate provided the identification of three specific welds K811, RH 42, and CY 606. The IE "findings" replied to the stipulated allegation by stating that one of the welds had been replaced, without mentioning when the corrective work had taken place, and therefore did not pursue whether or not a defective weld may have been accepted. In addressing the two remaining welds IE explained that "some discrepancies" were identified in the radiography review but decided not to undertake any additional investigative effort.

Keppler explained that he was unaware of the specific allegation as described, however, he would accept OIA's description of the events. Keppler then stated that if the investigation had not given any more response than that described then the allegation was not thoroughly addressed. Keppler also stated that he could understand why Applegate or anyone making an allegation would be upset with the results of the investigation and feel that the issues or concerns were not appropriately addressed.

Keppler was advised that it was the lack of documentation which produced questions regarding the adequacy of the investigation. In this particular instance the lack of information in the report combined with limited supporting documentation does not permit anyone reading the report to understand what investigative effort actually took place. Keppler stated that it appeared the report required additional, or at least more specific, information to address the allegation.

Keppler concluded by explaining it was his perception that the obvious weakness identified as a result of the OIA effort related to the entire Region III investigative program, rather than the performance of individuals. Keppler then stated that apparently he and the regional management had not been reviewing the results of the investigative program to ensure that there were clear and complete responses to the allegations. Following this statement Keppler suggested the possibility of additional review of future investigative reports to see if the language clearly answered the question(s) raised. Keppler then stated that one alternative would be to furnish the report to the Public Affairs Office who could review the material from a non-technical perspective and see if the language clearly explains what was done. Keppler believed this would increase the region's ability to provide complete and understandable responses to allegations.

Interview of Former Project Inspector

Mr. Thomas E. Vandel, Resident Inspector, Wolf Creek Nuclear Site, Wolf Creek, Kansas, was interviewed on February 18, 1981, at the Kansas City Airport, Kansas City, Missouri, by David Gamble and John Sinclair, Investigators, OIA. Mr. Vandel was advised that the purpose of the investigation and interview was to determine what knowledge he had pertaining to allegations raised by Thomas Applegate regarding deficiencies in construction at the William H. Zimmer Nuclear Site, Moscow, Ohio.

Mr. Vandel began the interview by explaining that he had been involved with the Zimmer nuclear construction site for approximately five years. Vandel also stated that it was the usual policy for a Project Inspector (PI) to be assigned to a particular facility for only approximately three years. The purpose is to prevent familiarity between NRC inspectors and the licensee and enable a rotation of inspectors. Vandel stated

that he had been extended for two additional years at the request of two supervisors, from Region III, Mr. D. W. Hayes and Mr. Dick Knop. Vandel also stated that during the period he was PI at Zimmer he had been involved with as many as seven nuclear utilities and inspections at those facilities. Two of the facilities for which he was also the PI was the Midland Nuclear Site and the Clinton Nuclear Site.

Vandel continued by stating that he did not believe that even at this time there was an NRC resident inspector at the Zimmer site who was responsible for or experienced solely in construction. Vandel stated that the first NRC inspector to be assigned at Zimmer was Tom Daniels, who was responsible for preoperational inspection at the facility. Vandel also stated that the facility is so close to completion that Daniels would be an appropriate inspector to be at the site when they start preoperational testing.

Vandel explained that as he recalled there were NRC hearings regarding other allegations at which he testified over a year ago. The hearings dealt with questions regarding the licensing of the project. Vandel said the Office of Nuclear Reactor Regulation (NRR) was also involved in doing some research about allegations, which were raised by intervenor groups. Vandel explained there were several issues he could recall which were being addressed by the NRC: (1) cable trays and welding regarding the cable trays; (2) installation of water-tight doors and related deficiencies; and, (3) water intake structures in the plant and rotating screens to bring in river water. Vandel further stated he believed the allegations were a result of intervenors' challenging these particular areas and the Atomic Safety and Licensing Board had requested the staff, both NRR and IE to investigate and report back to the Board.

Vandel stated that he remembered the Applegate allegations and briefly could recall what Applegate's role had been at the plant. According to Vandel, Applegate had been an undercover investigator employed by the licensee, CG&E, at the Zimmer Nuclear Site. Vandel believed that, sometime after Applegate left the site and was no longer employed by CG&E, Applegate called the Region III office and made allegations regarding the Zimmer site. Vandel stated that he could not remember what the specific allegations were; however, there was one specific area that he was personally involved in regarding the delivery of pipe spools at the site and their subsequent "dropping off a truck." This was one of the areas that Gerry Phillip was involved in investigating. Vandel said that Phillip had explained the allegations to him (Vandel) and he (Vandel) had arranged for Kavin Ward, an NRC Non-Destructive Examination Specialist (NDE) to accompany Phillip to the site and make an inspection of the alleged deficiencies. Vandel then stated that he had been involved with some of the initial planning of the investigation. He also stated that he had heard some of the progress as the investigation was conducted. Vandel explained that it was obvious that Kavin Ward should go to the site. Vandel further explained that he personally made the arrangements.

After the initial inspection or investigation at the site Phillip and Ward returned to Region III, at which time Vandel stated that he and others received a briefing concerning information that was discovered. One area that Vandel recalled was the licensee was not clear in its instructions when they requested PM to examine the piping which fell from the truck. According to Vandel, PM examined the entire pipe including prefabricated welding. It was a result of the radiography that questions were raised concerning the pipe. The radiography, as Vandel recalled, caused some problems mainly because radiography was not required for examination of certain welds. Secondly, PM had conducted radiograph testing of welds which did not have the proper configuration for radiography readings, particularly, radiography of welds at the pipe caps (butt welds), Vandel then stated that the licensee sought to resolve the issue by bringing Pullman Power Products, the pipe manufacturer, to the site. Sometime after it was determined that only ultrasonic testing would be the proper method of testing the pipe, Pullman did come to the site and perform ultrasonic testing which established that there were no defects in the welding. Vandel recalled he accompanied Phillip to the site for a second review of documentation pertaining to the pipe spools. He checked records and determined the resolution to be accurate. Vandel then stated that he reviewed specific documents: nonconformance reports, PM test inspection reports and Pullman examinations which were conducted by ultrasonic testing.

~~As~~ Vandel ~~continued to~~ explained that at the time he and Phillip were at the site they checked for material control procedures. This was an area where the licensee received a notice of violation for releasing some pipe spools for installation. The specific citation involved the failing to follow a procedure for documenting nonconformance and properly resolving the nonconformance before the installation of the equipment. Vandel stated that he was responsible for initially writing up the items (noncompliances). He recalled that he wrote two separate noncompliances which were subsequently combined into one notice of violation by Chuck Norelius, Region III. This was, according to Vandel, an enforcement or management decision to combine the two noncompliance (infractions) into one and use them as two examples of one violation. Vandel stated it was his belief that this type of procedure was consistent with Region III enforcement practices.

Vandel added that he believed there were discussions among personnel involved in the investigation or persons reviewing the investigation, regarding how to handle the results. Vandel stated that this probably involved himself, Norelius, Ward and Phillip. Vandel also believed that there was one major meeting relating to the results of the investigation to determine what action was going to be taken.

According to Vandel, Applegate had made other allegations regarding other activities at the Zimmer site. One of these that he could recall

involved employees removing or stealing materials belonging to CG&E from the site. Another allegation by Applegate involved the fabrication of belt buckles from steel materials located at the site. Vandel also explained that he was of the opinion that the non-safety related allegations were not going to be addressed by NRC and that this was explained to Applegate.

Vandel then stated that he believed that both Phillip and Jim Foster had been familiar with earlier allegations and activities at the Zimmer site and that some of the allegations had been the subject of previous IE investigations. Vandel stated that during the 1973-74 time period there were allegations from a former Kaiser QC inspector that a manufacturer was supplying poorly or insufficiently inspected materials. Vandel continued by stating that he participated in one area of the investigation with Phillip and another inspector by the name of Terry Lee. On a separate earlier allegation, Jim Foster investigated allegations regarding deficiencies with the cable trays at the Zimmer site.

Vandel explained that he had accompanied Phillip on the second trip to the Zimmer site to address the allegations of the pipe spools because Phillip had returned from the initial investigation at the site and believed there were areas that had not been completely addressed. After discussing the investigation results with Phillip, Vandel agreed he should accompany Phillip back to the site. As stated earlier, Vandel and Phillip were particularly concerned with possible noncompliance in the material control area. It was a result of the discussions with Phillip that Vandel agreed that they should return to the site and make a more thorough investigation into the matter. Vandel repeated that he and Phillip only addressed the areas related to the pipe spools and material control. Vandel then stated that, during Phillip's first visit to the site, Kavin Ward had looked at the radiography and other nondestructive examination areas which also included the pipe spool welds. Vandel then continued by stating that Ward did not look into the control procedures that permitted some sections of pipe to be installed without appropriate procedures. That was the sole purpose for Phillip and he to return to the site. According to Vandel, Ward's efforts to address Applegate's allegations covered one level concerning alleged welding deficiencies.

The second trip and investigation at the site was another level, or more closely scrutinized effort. Vandel stated that one particular procedure being checked was the failure to keep identified nonconforming material segregated from material that was ready to be installed. A second procedure that was reviewed allowed the installation of material to be installed in a location as long as it was "tagged" or had proper identification. Regarding the specific issue of PM's performing radiographs of pipe, Vandel believed it was appropriate for Kaiser to overrule PM's tests. Vandel explained that, if anything, he believed that PM should

have been "chastized" for not doing their job properly. Specifically, Vandel stated radiography which was conducted by PM was an improper technique for identifying possible deficiencies in the welds.

When responding to questions regarding the IE report of investigation and Vandel's involvement in either reviewing or writing portions of the report, Vandel stated that Phillip was the author of the section of the report which incorporated the details. Vandel explained that most of the information and wording in the "Details" section is Phillip's. Vandel then stated that he did have the opportunity to provide certain information which was submitted as drafts. One portion - which was already mentioned - involved the noncompliances regarding the materials. Vandel, upon reviewing OIA's copy of the report of investigation, also stated that he believed some of the input in the findings paragraph for allegation 3 (page 13) also contained his writing. Vandel then explained that the rest of his information or involvement in the compiling of the report would have been only verbal exchanges with Phillip.

Vandel continued by stating that on a previous visit to the site a General Mechanical Superintendent for Kaiser had showed him pieces of material that some of the employees had been using to manufacture belt buckles at the site. Vandel believed the belt buckle material was part of the material which was used in the rotating screens at the intakes. Vandel then stated that he did not pursue the belt buckle manufacturing because he did not consider it safety-related. Vandel continued by stating that he would have been concerned only if the material had been considered safety-related material which was not replaced.

Near the conclusion of the interview Vandel volunteered that during the time of the ASLB hearings which occurred approximately May-July 1979, NRC staff attorney Charles Barth and he met with Mrs. Maggie Erbe from Moscow, Ohio, on a number of concerns. One of the concerns was the manufacturing of belt buckles. Vandel had no additional involvement in the matter other than he heard that Barth subsequently wrote a letter back to Mrs. Erbe regarding the allegation. Vandel then stated that he at one time had a sample of the material which was being used to manufacture the belt buckles.

Vandel stated that either prior to or during the investigation he neither met nor talked to Applegate. He stated he knew Applegate had come forward or volunteered the information to the NRC. In regards to Phillip's contact with Applegate, Vandel understood that Phillip had informed Applegate that the IE was not going to investigate other issues raised by Applegate: specifically, manufacture of belt buckles, time card padding and drinking at the site.

Regarding the results of the IE investigation, Vandel stated that, at some time near the conclusion, Phillip described all of the allegations to a group at Region III; he believed everyone knew what items were going to be included in the investigation and report and what issues or allegations were not going to be addressed as being of concern to the NRC.

In response to some questions related to procedures for investigations at construction sites, Vandel explained that the inspections and investigations are unannounced unless there is a particular reason for advising the licensee, e.g., to coordinate a schedule to view a particular phase of work in progress. Vandel believed that it was the policy that investigators initially contact alleged or individuals bringing information to the attention of NRC by telephone to establish a time and schedule for a personal interview to discuss their concerns. Vandel then explained that this is usually done by the investigators who make an effort to contact individuals away from the site. Vandel concluded by stating there are certain occasions when the investigative staff requests an inspector with engineering background to accompany them on specific cases when they believe the information will be so technical to require someone with technical expertise to assist in the interview of the alleged. Vandel concluded the interview by stating that he could not provide any additional information regarding the Applegate allegations or the investigation conducted at the Zimmer site.

Reinterview of Gerald Phillip and Kavin Ward

Gerald Phillip and Kavin Ward were reinterviewed on February 19, 1981, by James Cummings, Arthur Schnebelen, David Gamble, and John Sinclair, OIA.

Phillip described the review he and Ward performed of the 99 welds in the core spray system. He said they obtained from document control personnel 99 envelopes which contained the radiographs and "reader sheets" for the welds in this system. They did not review any of the packages which contained the detailed weld history for each of the welds. Phillip said they did not review all the radiographs either. He said they reviewed all the reader sheets and found two situations where Kaiser accepted welds that PM had considered rejectable. Phillip said that Ward examined the radiographs for these two and agreed with Kaiser's determination. Phillip said they did not look at the radiographs for the others - including the "five to ten" that Kaiser rejected after PM had accepted - because their objective in conducting the review was to determine (1) the degree of Kaiser's overruling and (2) whether Kaiser's overrulings were legitimate.

OIA then addressed page 6 of the IE report which identifies "Allegation 1" as "Defective welds in safety-related systems have been accepted, among them were welds CY-606, HR-42 (sic), and K-811." Phillip was then asked whether the alleged actually used the word "accepted" and, if he did, whether he realized that "acceptance" connoted particular formal acts by Kaiser? Phillip responded that he believed the alleged said that they had "bought" bad welds: he did not recall the alleged's use of the word "accepted." Ward explained, by way of background, that acceptance of a weld is demonstrated by Kaiser's approval on the reader sheet.

Phillip said that they did not list the history of each of the three individual welds in question (page 8 of the IE report) because they were only interested in the final version of each weld. Ward noted that the licensee is only required to maintain the final radiograph and reader sheet to demonstrate compliance with the code. Ward and Phillip believed they reviewed the radiographs for these three welds. Ward noted that accompanying each of these radiographs was an NES form which documented that it had discrepancies which had yet to be resolved.

Phillip and Ward said they did not know whether CY-606 was a safety-related weld, although Ward said he was subsequently informed that it was. Ward said that just three weeks before this interview he learned from the licensee that the "discrepancy" with CY-606 was that an improper technique was used when the weld was radiographed: no shims were used under the penetrometer. Ward said that he also just learned that this weld is buried in concrete. Ward said that he is unable to independently review a radiograph to determine a weld's acceptability when an improper radiographic technique was used.

Phillip was then asked why the IE report's outline of CY-606 (page 8, para. 4) failed to mention that NES' October 12, 1979, finding of "discrepancies" followed Kaiser's August 12, 1976, acceptance which overruled the radiographer's August 11, 1976, finding that the weld was rejectable. Phillip claimed that they did not see the document containing this overruling. Phillip further stated that, even if they had learned of the overruling, they would not have made a big point of it. He said that their review of the 99 welds in the core spray system was to provide an indication of the degree of the overruling; therefore, even if they had located this overruling which was in another system, it would not have altered their finding regarding overruling.

Phillip and Ward recalled that, when they asked about weld K-811 they were informed that it had been cut out and replaced by K-916. They said that Kaiser furnished them with documentation to this effect, presumably the 1979 nonconformance report (NR #E-2138R1). Phillip and Ward could not explain why a deficiency in a 1977 weld was not documented by a NR until 1979. Ward said that he learned just three weeks before this interview that K-916 has not been radiographed because of water in the line. Ward also said that a Kaiser nondestructive examination supervisor has informed him that K-916 is a class C weld (i.e., it is not safety-related).

Ward said he was also informed just three weeks before this interview that weld RH-42 had been cut out and replaced by K-261 and K-262. OIA displayed to Phillip and Ward copies of welding records which documented that rework on RH-42 was being conducted at the same time the IE investigation was underway. Phillip expressed surprise and replied that he was not aware of this. Phillip and Ward said that when they reviewed the reader sheet for RH-42 during the period April 7-9, 1980, it reflected that the weld was acceptable. They said the records contained no indication that RH-42 had been, or was going to be, cut out and replaced. Phillip said they did not inform the licensee in advance as to what

welds would be reviewed. Phillip noted that, inasmuch as Applegate claimed he brought these welds to Schweirs' attention, the licensee may have expected that someone would be reviewing this weld sometime.

Investigators' Note - After a lunch break the interview was continued with Phillip only.

Phillip said he knew from his first visit to Zimmer that the notation on NR/E-1911, Rev. 2 - which was holding up installation of the spool pieces - had been lined out; however, he did not establish who lined it out. Phillip said he also realized on his return to the Regional Office after the first visit that Applegate's allegation was that the spool pieces were bad at the factory - not that they were damaged when unloaded from the truck. Phillip said that he discussed the matter with Norelius and, for these and other reasons, they decided that Phillip should do further investigation at Zimmer. Phillip said that the Zimmer personnel knew he was returning because he so informed Schweirs a couple days ahead of time.

Phillip said he established that Mr. Oltz, with Kaiser's Document Control Unit, was the one who lined out the NR notation. Phillip could not recall Oltz' excuse, but Oltz did agree that his method of closing the NR by lining it out was incorrect. Phillip said the warehouse man who released the spool pieces based on the altered NR informed him that he was present when Schweirs directed Oltz to line out the notation. Phillip said he did not pursue the matter after Schweirs denied it because the "bottom line" was that there was no cover-up, as evidenced by the other NR that remained open on the matter. Phillip suspected that this lining out only occurred because the Zimmer personnel considered it to be only a "paper problem." Phillip said that, in fact, the spool pieces passed ultrasonic tests Kaiser performed between their two visits.

Investigators' Note - Toward the end of the interview, Ward returned to advise OIA that he had just learned from Len Wood of CG&E that the three welds are all safety-related. He said K-916 is a class 3 weld and both K-262 and CY-606 are class 2 welds.

Interview of IE Investigator

Everett L. Williamson, Jr., Investigator, Region II, IE, was interviewed at the Washington National Airport, Washington, D.C., on March 5, 1981, by Investigators David Gamble and John Sinclair, OIA. Williamson said he participated in an interview of Thomas Applegate which occurred sometime around March 3, 1980. Williamson said that about a week before that date his supervisor, William Ward, instructed him to meet Region III Investigator Gerald Phillip in Cincinnati, Ohio, to assist Phillip in an investigation. Williamson said that Ward informed him that Applegate had called NRC; he believed the Headquarters Duty Officer had received and recorded Applegate's call and Ward called Applegate back. Ward said

Applegate was articulate and seemed to have genuine concerns. Ward said Applegate indicated he had done some undercover work at the Zimmer Nuclear Power Station. Ward gave Williamson the name of a Mr. Upchurch who was with the FBI's Cincinnati office. Williamson understood his purpose was to observe and assist Phillip as a witness; his limited involvement was because he had only been with the NRC for about two months.

Williamson said that he called Upchurch and informed him that he (Williamson) would be in town soon and may want to talk to him. Williamson then contacted Phillip regarding travel arrangements. He met Phillip at the Cincinnati airport on Monday morning. They took a rental car to Covington, Kentucky, where they called Applegate from a restaurant. Williamson did not know how much previous contact Applegate and Phillip had had. Applegate gave them instructions to meet him in the parking lot of the Church of Christ in Covington. Applegate described how he would be dressed so they could recognize him.

Williamson said they met Applegate about 1:00 pm. He described Applegate as a "big guy" wearing boots, a hat and a "Marlboro jacket." He said Applegate walked them several doors away to his house. When they got inside, Applegate took his jacket off and they observed he was wearing a gun.

Applegate then described his role at Zimmer. Williamson said he did not understand many of the technical things that Applegate was describing. He said that Applegate and Phillip did most of the conversing. The only thing Williamson recalled asking Applegate was biographical data such as his name, address and phone number. Williamson recalled that Applegate said he was hired as a private investigator to investigate time card padding at Zimmer. Williamson recalled three specific issues that Applegate raised: 1) the manufacture and sale of stainless steel belt buckles; 2) the sale of hand guns; and 3) an issue regarding safety-related pipe. Williamson described the third issue as being a situation where pipe was delivered to the Zimmer construction site at night and then dropped onto the ground. Applegate claimed the pipe required 100 percent radiographic testing after being dropped. Williamson was sure there were other issues raised by Applegate but he could not recall them. Applegate's conversations were interspersed with some of his personal experiences, such as when he allegedly worked undercover to help the Drug Enforcement Administration. Williamson believed that Phillip was very meticulous. He said Phillip spent a lot of time with Applegate and listened to him very carefully. Williamson recalled specifically feeling at the time that Phillip had taken a lot of notes and had paid a lot of attention to detail.

Williamson recalled listening to some tape recordings which Applegate played. He said the recordings were garbled and therefore hard to understand. He said Applegate apparently wore the recording device as a

body recorder, although Williamson believed the recorder was not designed for that purpose. Applegate described who was participating in each of the recorded conversations and what was the subject matter of each conversation. Williamson said that he and Phillip tried to listen to the recordings, but they could not understand the recordings while the recorder was sitting on the table. He said that he and Phillip held the recorder up to their ears in an attempt to understand what was being said. Williamson said that intermittently they could understand some of the conversation but the quality was still poor.

Williamson said Applegate had some documents regarding his work which he obtained from Major Cox, his employer. Williamson said he did not take any notes or retain copies of any of these documents. Williamson said he did get the documents copied and he gave these copies to Phillip. Williamson said that, in order to get the documents copied, Applegate called the FBI's Covington office to ask if they would copy them. When they turned Applegate down, they thought the FBI Cincinnati office may be able to help. Williamson said he also figured that he could then talk to Upchurch.

Williamson left Applegate's residence around 2:00 pm. He got to downtown Cincinnati sometime between 2:30 pm and 2:45 pm. He then went into the Federal Building to see Upchurch. Upchurch recalled having talked with Applegate. Williamson said he was unable to copy Applegate's documents at Upchurch's office because the FBI's xerox machine was not working. Williamson believed that he got a copy of an FBI letterhead memorandum from Upchurch, although Williamson could not recall how Upchurch made the copy because the xerox machine was broken. Williamson said he talked to Upchurch for about 15 or 20 minutes; this conversation was mostly small talk and not so much about Applegate's allegations. Williamson could not recall whether Applegate had come to the FBI or whether someone else had referred Applegate to them.

Williamson then tried to get the documents copied at the US Attorney's office; however, their xerox machine was also broken. Finally, after about 15 minutes of searching, Williamson found someone in the State Tax Assessor's Office who allowed him to copy the documents. By this time it was 4:30 pm and, when Williamson returned to his car, he discovered that his car had been impounded due to a snow emergency. Williamson said he got the car back around 5:00 pm and returned to Applegate's residence by 6:00 pm. Williamson only remained in Applegate's house for about five or 10 minutes because Phillip was ready to leave. Williamson did not recall Phillip's bringing any tape recordings with him. Williamson did not know whether Phillip had given Applegate any breakdown of either the issues he perceived or NRC's jurisdictional limitations.

Williamson said that he and Phillip then went to dinner and returned to their motel. Williamson said Phillip and he talked about what NRC's jurisdiction was on the issues Applegate raised. Williamson recalled

specifically questioning Phillip as to whether NRC had jurisdiction over matters such as 1) management problems, 2) theft of materials from the site, or 3) weapons violations (which Williamson understood to be within the jurisdiction of the Bureau of Alcohol, Tobacco and Firearms). Williamson recalled Phillip's saying that this was something he had to look over in order to sort out Applegate's concerns. Williamson did not recall Phillip's singling out any issues as to which were or were not NRC concerns. Williamson said that after dinner, at about 8:00 pm, he and Phillip went their separate ways at the motel.

The next morning Phillip called Applegate from the motel and asked him a few additional questions. Williamson said he was in the room with Phillip during the telephone call. Williamson said the call lasted about 10 or 15 minutes. Williamson could not recall the substance of the call because much of the technical aspects were foreign to him at the time. Williamson did recall Phillip's going through some of the documents with Applegate. Williamson said that Phillip had reviewed the documents the night before and made some notes concerning them. Williamson said Phillip left Cincinnati about 10:00 that morning and he (Williamson) left a few hours later.

Williamson recalled talking with Ward upon his return to Headquarters. He said he told Ward that the only allegation he saw that was within NRC's jurisdiction was the issue about the piping being dropped off the truck. Williamson said this conversation only lasted about two or three minutes.

Williamson guessed that his next contact with Phillip was sometime in the next two or three weeks. Williamson said he later (in May) received a call from a newscaster from Channel 9 in Cincinnati. The newscaster had a copy of Phillip's letter to Applegate describing the issues to be investigated. Williamson recalled speaking with Phillip sometime after being contacted by the newscaster. Williamson said he had no more contact with anyone regarding this investigation until the material came out from the Government Accountability Project. Williamson said he was not involved with the writing of the Region III report of investigation. He did not feel that he had to write anything nor did he ever feel that he would have any input into the report.

Interview of Terry Harpster

Terry Harpster, Reactor Preoperations Specialist, IE, on detail as a Special Investigator to the Subcommittee on Energy, Environment, and Natural Resources, Government Operations Committee, U.S. House of Representatives, was interviewed on March 6, 1981, by Investigators David Gamble and John Sinclair, OIA.

Harpster said he worked in Region III of NRC from 1974 through 1979. He said he was a technical support inspector initially for all plants in

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CONCERNING

Region III. He later became a project manager for particular plants: first for DC Cook Unit 2, then Monticello, then both Zimmer and Monticello at the same time. Harpster said he began his inspection activities at Zimmer in October 1977 as a preoperations start-up inspector. He said he was assigned to this position until he left Region III in September 1979; however, he had no real involvement with Zimmer after the Three Mile Island (TMI) accident in March 1979. Harpster said that a pre-operations inspector picks up a plant when construction is far enough along, i.e., about 60 percent completed, to review certain programs, e.g., the quality control program for preoperational work. Harpster said that Tom Vandel was his counterpart as the lead construction inspector. Vandel had inspected Zimmer prior to Harpster's arrival but there was a period of overlap when they both worked there. Harpster said John Menning worked with him as a preoperations inspector who he was training. Harpster said that Menning "took one look" and left the NRC because the program was so bad. He related that one of Menning's reasons for leaving was that he saw how little support the inspectors got on the job. Harpster understood that Menning left to attend the University of Arizona where he is working on his Ph.D. in metallurgy.

Harpster said that when he picked up Zimmer the licensee (Cincinnati Gas and Electric Company) had little appreciation for the amount of resources needed for the plant. He said they barely met ANSI Standard 18.1 which is the criteria for staffing. Harpster explained that even this standard is a loose one which has since been upgraded. Harpster said that one of his jobs was to show the plant management what was required to get the plant off the ground. He said that his inspections documented a number of problems at Zimmer. Harpster said that, for example, the employee who was being placed in charge of the start up operation only had about three months of actual experience in the plant. He explained that the licensee counted as nuclear experience the amount of time operations employees were onsite during the construction of Zimmer. Another example was his impression that the plant personnel felt that, once the parts were bought for the plant, they did not need any support from their corporate offices. He also believed that many plant personnel felt a nuclear plant was similar to the operation of a fossil fuel plant. Harpster said that he tried to resolve some of these problems informally; including going up through the licensee management chain to Vice President Earl Borgmann, but with no luck.

Harpster said he was successful in getting a meeting set up in Bethesda to discuss apparent weaknesses with licensee's organization and staffing. He said this meeting was held on July 13, 1978, only after he "screamed" at licensing officials in Bethesda, particularly Irv Peltier who was then project manager in NRR responsible for issuing the safety evaluation report (SER). Harpster said that he presented his concerns at that meeting and the utility agreed to upgrade their program. He recalled that the specific response was to "buy" an engineer from General Electric to assist them.

Harpster said that the overall problem was that NRC's licensing process was rolling much faster than he could "ratchet" improvements at the plant end. Harpster said that NRC's requirements were a "joke." He said that NRR was about to issue the SER and they set up a meeting of the Advisory Committee on Reactor Safeguards (ACRS) to which he was not invited.

Harpster said he went up the Region III management chain and presented his concerns. He said he attended the ACRS meeting anyway. He recalled that when licensee officials were questioned by ACRS Chairman Bender, they said several things that were not true. Harpster noted that not only did he feel they were not true, but Menning also believed they were not true. Harpster said he presented this conflict to his boss, Robert Warnick, when he returned to the regional office. He said that he and Menning later talked with one of the licensee officials who had testified to the ACRS (Jim Schott who was the plant manager of Zimmer). During their conversation, Harpster had Warnick read Schott's testimony to Schott over the phone. He said that Schott then agreed that the testimony did not convey the correct impression. Although Schott assured Harpster and Menning that he would clarify this at the next ACRS meeting, he did not. Harpster believed that Schott's subsequent testimony even aggravated his earlier statements.

Harpster said he briefed his management on this matter. He recalled that his Regional Director, James Keppler, sent a letter to the ACRS informing them of the situation. Harpster understood that this letter was later forwarded to the Atomic Safety and Licensing Board (ASLB).

Harpster explained that, after the ACRS meeting, he also informed Peltier (in Menning's presence) of his concerns. He said that Peltier later claimed that he did not recall Harpster's expressing his concerns to him. Harpster explained that Peltier is a "pro-nuclear" "pro-licensing" employee. He also explained that during a start-up of a nuclear plant, NRR is on a very tight schedule; the IE inspector is often viewed by NRR as an adversary when he uncovers deficiencies which NRR has already "blessed."

Peltier told Harpster that he had informed the licensee about an IE investigation underway on the subject of the licensee's testimony before the ACRS. Peltier also informed Harpster that Charles Barth (attorney with the Office of the Executive Legal Director) had called James Yore (Chairman of the ASLB Panel) and told Yore to throw away Keppler's letter describing the discrepancies. Harpster pointed out that these latter two matters were the subject of a recent investigation by OIA. Harpster said in summary that this was a situation where the system broke down: NRR viewed IE as the "bad guys" trying to hold up plant licensing.

Harpster said that Borgmann was also putting the heat on him by, for example, sending a letter to Keppler. Harpster also understood that the Chairman of the licensee sent a letter to President Carter and others. Harpster said that it was about this time that the TMI accident occurred. He said he was assigned to TMI and he has not been back to Zimmer since. Harpster said that, when he left, Zimmer still had problems. A principal one was that, as a practical matter, there was no QA program for operations. He said that all Zimmer had was one person assigned to this function and that person could not possibly do all that the job required.

Harpster said that realistically the IE modular inspection program does not deal with the things you have to focus on early in a plant's life. He said that an inspector must deal with the problems he knows are important and then deal with other problems in addition. Harpster said that he had to deal with the construction people somewhat at Zimmer. He said that the licensee had minimal involvement with the construction at Zimmer: everything was controlled by its contractor. He said that this is a problem because, after the plant is built and the contractor leaves, the licensee would not have any expertise to handle the plant. He said that for example there was no one on the licensee's corporate staff for reactor instrumentation and control systems. Harpster felt that this licensee was "in over its head."

Harpster said that people often bring matters to an inspector's attention. He said that an inspector can deal with some of these matters, but there are some which he cannot. Harpster said that sometimes so many things are wrong that a plant is out of control. Harpster concluded that "Zimmer was out of control." Harpster explained that a licensee's ability to get money for the construction of a nuclear power plant (by, e.g., the sale of bonds) is based upon the percentage of completion of the plant. He said that this results in a situation where the construction personnel attempt to turn things over as completed before they are ready. Harpster said that what then happens is that the licensee staff is not properly prepared or trained to handle them. He said when the licensee finds things that are wrong, they cannot fix or test them properly. What they must do is give the problems back to construction to be remedied. Harpster said this is indicative of a construction QC program that does not work. He said this is a situation which an NRC preoperations inspector tries to head off. He said that one example of this was that the licensee had not ordered any spare parts. According to Harpster the time required to obtain additional or replacement equipment is so long it causes a major problem to licensees trying to resupply or obtain back-up equipment.

Harpster said that sometimes plant management puts so much pressure on their personnel that the personnel cannot get things done. He said that these personnel then sometimes use NRC inspectors to accomplish the same things: they feed inspectors information so it appears that the inspector found the deficiency rather than the plant personnel. Harpster said that, from what he could see, it appeared that the construction program

had defects and he was about to inherit them. Harpster explained that he was not directly familiar with the construction activities but he saw the results - including the QA problems. Harpster said that Inspector Fred Maura has documented much of these problems from the operations side.

Harpster said that both the site construction manager, Mr. Gear (phonetic) and the site QA manager Mr. Schweirs were friends of Vice President Borgmann. Harpster believed that Schweirs was assigned by the licensee to keep the plant manager (Schott) under control. Harpster said Schweirs even called the regional office to try to get some of the IE inspection reports changed. Harpster said Schweirs also asked him to send IE inspection reports to him (Schweirs) so he could decide which matters would be sent on to Schott.

Harpster said part of the problem was that NRC does not have explicit regulations to inspect against. He said that the preoperations inspector is faced with the task of trying to get control of the site and helping the licensee to solve its problems. He said that the inspector only documents a small percentage of this "helping work." Harpster said the licensee had no people involved with preoperations and test acceptance. He said that everything was bought under contract so the contractor was able to do whatever it wanted. Harpster said the licensee then had no one who knew how to handle the problems that were "built-in."

Harpster said he tried to get the plant managers out to take tours of the plant. He said that one assistant plant manager said he was scared to tour the plant because of the convicted felons working out there. Harpster said that sometimes the licensee's own security force could not handle disturbances and they had to call the local sheriff's office. Harpster explained that there is some drinking of alcohol on all nuclear construction sites. However, the licensee at Zimmer did not have much control of things. Harpster said there were a lot of "tough guys" working at the plant and the situation got worse when they were drinking.

Harpster said that there are many allegations at any nuclear power plant; however, usually only a certain number are true. Harpster said that one could tell that there were a large number of problems at Zimmer because so many allegations were coming up.

Harpster said there was a lot of pressure on individual IE inspectors because of the momentum generated by the NRC licensing process. Harpster said that pressure is also created on construction personnel by the contractor's weld production schedules. He explained that the construction manager has to have a certain number of welds completed to keep the piping installation on schedule. He said that problems arise when the construction personnel are pushed. Harpster said that for a QC inspector to stop construction for any deficiencies, he would have to hold up many phases of the construction of a \$1 billion plant; so the QC inspectors normally do what they are told.

Harpster said that nuclear power plants employ personnel specifically designated to serve as their liaison with NRC. He said that this is helpful because it overcomes the problem IE inspectors face in trying to find their way through the great amount of paperwork at the plant. Harpster said, however, this liaison person also "steers" the inspectors' activities. Harpster said that dealing with this liaison person does allow the inspector to get through NRC's modular inspection program very well. Harpster noted that there is no real internal audit of the NRC's inspection program.

Harpster described the "helping activities" that an IE preoperations inspector engages in as a process of getting all the procedures and controls in place. He said that this activity constitutes only about two lines in the IE procedures, but it is the largest part of a preoperations inspector's time.

Harpster estimated that the interest cost alone in holding up construction of a nuclear power plant for one day would be several hundred thousand dollars. He observed that, with the increased pressure on NRC to license power plants, he would expect even more pressure to be placed on IE inspectors. He said that pressures on the licensee personnel to make exceptions to the acceptance criteria in the preoperations tests are very real. He said it is difficult for an IE inspector to tell whether the licensee's exceptions are based on valid engineering analyses. He said that all inspectors cannot possibly be experts in all areas. Harpster said the inspectors must rely on the licensee's people to review the exceptions. Harpster said that this represents a flaw in the NRC's system because the licensee's reviewers are under the same pressure to approve exceptions. Harpster pointed out that the licensee, because it is a utility company, cannot pass on the amortization costs to the ratepayers until the plant reaches the point of completion, i.e., the stage of commercial operations.

Review of Welding Records

OIA reviewed welding records which included Radiograph Reports, Weld Rework/Repair Data Sheets and Weld Data Sheets to identify specific information concerning (1) dates of weld rework and (2) whether or not welds had been replaced. Complete weld packages identifying all work on the three alleged defective welds were reviewed. This review disclosed that rework was being conducted at the time the IE investigative effort was ongoing at the Zimmer site; however, the rework was on one of the safety-related welds (RH-42) and not on welds on prefabricated pipe (spools). Information contained in IE Report 50-350/80-09 describes IE's review of records which disclosed that one weld was cut out (K-811) and replaced by a new weld (K-916). The IE report did not identify the date of the rework. As part of the OIA review the welding records for weld K-811 were reviewed and as a result it was discovered that an NR/E-2138R was dated October 11, 1979, however, the date of the actual weld rework was January 1980. This date precedes any NRC notice of alleged

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deficient welds at the Zimmer site but followed Applegate's employment at the site and his notification and identification of the three specific alleged defective welds to CG&E officials. *IN ADDITION THE ORIGINAL NR (2138) DATED 10-11-77 DESCRIBED THE REWORK BEING CONDUCTED IN JANUARY 1980. HOWEVER IT ALSO DESCRIBED THAT THE WELD AREAS IN QUESTION WERE INITIALLY NOT ~~BE~~ CONSIDERED FOR REWORK AND WERE ACCEPTED AS SUCH.*

The IE report also found that none of the three welds originally welded between July 1976 and November 1977 had received "final acceptance." The report also indicates, however, that weld RH-42 described supra, was included in a radiograph review but does not indicate that it was being reworked or replaced. Contrary to this, during the two periods of investigation (April 7-9 and April 30, May 1, 2), on site, Kaiser personnel were reworking the stipulated weld to the extent that it was completely cut out and replaced by a new weld. According to available weld documentation the weld was scheduled for rework approximately March 21, 1980, with actual work being conducted during April and concluded with a quality control inspection of the "final pass" on May 6, 1980.

Below is a brief description of the status of the three alleged defective welds and available information documented during the course of both the IE investigation and the OIA investigative effort. *THE IE INVESTIGATION (80-09) AND WELD DOCUMENTS ~~FOR~~ FOR WELDS CY606, RH-42 AND K 811 ARE PROVIDED AS ATTACHMENTS ~~AT THE END~~ RESPECTIVELY.*

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