

May 17, 1983

MEMORANDUM FOR: Carlton Kammerer, Director  
Office of Congressional Affairs  
FROM: Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
SUBJECT: REQUEST FOR EDIT OF UDALL THREE MILE ISLAND TRANSCRIPT

Enclosed are editorial changes necessary in staff testimony from the Udall Hearing.

Original Signed by  
H. R. Denton

Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

Enclosure:  
As stated

DISTRIBUTION

- Docket No. 50-320
- NRC PDR w/incoming
- Local PDR w/incoming
- EDO
- TMI HQ R/F
- TMI Site R/R w/incoming
- BSnyder
- LBarrett
- TPointexter
- RWeller
- MMasnik
- MGarver NRR-83-157
- ECase
- HDenton
- PPAS
- DEisenhut
- TSpeis
- RVollmer
- HThompson
- NGrace

8305230189 830517  
PDR ADDCK 05000320  
T PDR

\*See previous concurrence

OFFICE	TMIPO *	DD/NRR	D/NRR				
SURNAME	BSnyder/bq/mg	ECase	HDenton				
DATE	05/12/83	05/11/83	05/11/83				

MEMORANDUM FOR: ~~Carlton Kammerer, Director  
Office of Congressional Affairs~~

FROM: ~~Harold R. Denton, Director  
Office of Nuclear Reactor Regulation~~

SUBJECT: ~~REQUEST FOR EDIT OF UDALL  
THREE MILE ISLAND TRANSCRIPT~~

Attached are editorial changes necessary in staff testimony from the Udall Hearing.

~~Harold R. Denton, Director  
Office of Nuclear Reactor Regulation~~

Attachment: As stated

Distribution:  
 Docket No. 50-320  
 NRC PDR w/incoming  
 Local PDR w/incoming  
 EDO  
 TMI HQ R/F  
 TMI Site R/F w/incoming  
 BJSnyder  
 LBarrett  
 TPoindexter  
 RWeller  
 MMasnik  
 NRR Corres. Asst. (MGarver) NRR #83-157  
 ECase  
 HDenton  
 PPAS  
 DEisenhut  
 TSpeis

~~RVollmer  
HThompson  
NGrace~~

OFFICE ▶	TM/DO/NRR	DD/NRR	D:NRR				
SURNAME ▶	BJSnyder;bg	EGCase	HRDenton				
DATE ▶	5/2/83	5/11/83	5/ /83				

1633

1634

1635 STATEMENT OF CHAIRMAN NUNZIO PALLADINO, NUCLEAR REGULATORY  
1636 COMMISSION; ACCOMPANIED BY COMMISSIONER VICTOR GILINSKY;  
1637 COMMISSIONER JOHN F. AHEARNE; COMMISSIONER THOMAS M.  
1638 ROBERTS; AND COMMISSIONER JAMES K. ASSELSTINE.

1639

1640 Mr. UDALL. Chairman Palladino and Commissioners, we're  
1641 pleased to have you back with us today. Before we begin,  
1642 Congressman Markey has asked that a statement that he has  
1643 prepared be submitted for the record in these proceedings.

1644 Without objection, it will be.

1645 [The complete statement follows.]

1646

1647

1648 Mr. UDALL. I've just explained to the Committee Chairman  
1649 Palladino that we're in a difficult position with time, as  
1650 are you, I understand.

1651 We are interrupting the regular schedule of witnesses to  
1652 put you on first. Hopefully, not more than five or 10  
1653 minutes, and maybe some of the members of the committee will  
1654 have a quick question or two.

1655 But we hope you will be brief and summarize your points.

1656 Mr. PALLADINO. Thank you, Mr. Chairman. Would you like me  
1657 to begin?

1658 Mr. UDALL. You may begin.

1659 Mr. PALLADINO. Mr. Chairman and members of the  
1660 subcommittee, in response to your invitation, we're here to  
1661 discuss major developments at Three Mile Island since April  
1662 1982.

1663 I have attached to my testimony responses to the five  
1664 specific matters that you particularly wished to discuss  
1665 regarding the cleanup of TMI Unit 2 and the licensing  
1666 proceeding for TMI Unit 1.

1667 With me today are my fellow Commissioners. Commissioner  
1668 Roberts I expect will be here in just a moment. And members  
1669 of the Staff.

1670 I will begin by presenting a brief summary of these  
1671 matters, starting with the status of the cleanup at TMI Unit  
1672 2. Over the past four years since the accident at TMI Unit

1673 2, the utility has made progress on the TMI-2 cleanup. The  
1674 radioactive waste water from the accident collected in the  
1675 reactor building was processed over a year ago. Offsite  
1676 shipment of radioactive wastes is continuing.

1677 A preliminary visual inspection of the core was conducted  
1678 and some of the preparatory work needed to remove the  
1679 reactor vessel head has been completed.

1680 Difficulties with decontaminating the reactor building,  
1681 and qualifying the polar crane for the reactor vessel head  
1682 lift are resulting in near-term schedule delays.

1683 In addition to our investigation of recent allegations  
1684 about the conduct of the TMI-2 cleanup, the NRC is also  
1685 re-examining the licensee's efforts to requalify the polar  
1686 crane.

1687 The licensee's current planning schedule calls for lifting  
1688 the reactor vessel head this summer. Fuel removal is  
1689 scheduled to be completed by mid-1986, with overall cleanup  
1690 scheduled to be completed by mid-1988.

1691 Although we are not aware of any known technical factors  
1692 that could preclude eventual cleanup, technical problems are  
1693 to be expected, since the most difficult work lies ahead;  
1694 reactor vessel plenum removal, fuel removal, and reactor  
1695 building decontamination. Such problems could lengthen this  
1696 schedule.

1697 The licensee's funding of the cleanup is based on Governor

1698 Thornburgh's cost-sharing proposal. Current funding  
1699 commitments appear to cover activities through 1984. Funding  
1700 shortfalls in 1985 and beyond could further lengthen the  
1701 schedule, if they are not resolved.

1702 I will now provide a brief summary on the status of the  
1703 restart of TMI Unit 1. The Commission has pending before it  
1704 the question of whether to lift its 1979 orders directing  
1705 that Unit 1 remains shut down.

1706 There are two categories of actions that need to be  
1707 satisfactorily completed on TMI-1 before the Commission can  
1708 make a decision on restart.

1709 The first category relates to the Commission's decision on  
1710 contested issues in the restart proceeding and the  
1711 certification by the NRC staff to the Commission that all of  
1712 the actions required as a result of the Commission's 1979  
1713 orders and the Licensing Board and Appeal Board orders have  
1714 been completed.

1715 The second category involves matters outside the restart  
1716 proceeding that still require resolution. Completion of  
1717 repairs to the two steam generators is the major matter in  
1718 the latter category that may control the restart schedule.

1719 The major areas of contention in the TMI-1 restart public  
1720 hearings involved are plant design and modification;  
1721 separation of TMI Units 1 and 2; licensee management  
1722 capability and resources; and emergency preparedness.

1723           The Licensing Board issued decisions favorable to restart  
1724 on most of these issues. However, the Licensing Board  
1725 reopened the record for further hearings before a Special  
1726 Master to assess whether its initially favorable decision on  
1727 licensee's management capability should be affected, because  
1728 some operators had cheated on their reactor operators  
1729 examinations, and the Licensing Board concluded that it  
1730 should be so affected.

1731           The separate action was completed by the Licensing Board's  
1732 decision on cheating of July 27, 1982. The Appeal Board also  
1733 recently reopened the record to take additional evidence on  
1734 decay heat removal capability at TMI-1 following a small  
1735 break loss-of-coolant accident and loss of main feedwater.

1736           The Commission and the Appeal Board are now reviewing the  
1737 record; the Appeal Board in its consideration of appeals  
1738 from the Licensing Board's initial decisions and the  
1739 Commission in its consideration whether its shutdown orders  
1740 should be lifted.

1741           Regarding the recent trial proceeding between B&W and GPU,  
1742 an NRC review team issued a report on March 28, 1983 on its  
1743 review of the trial record.

1744           Staff comments issued April 18, 1983 on this report  
1745 indicate that the Staff will, among other things, evaluate  
1746 the effectiveness of the steps GPU has taken to ensure  
1747 adherence to station operating procedures and will review

1748 current TMI-1 personnel and their current responsibilities  
1749 vis-a-vis their responsibilities during the time frame of  
1750 the Hartman allegations.

1751 Accordingly, the NRC staff involved with the management  
1752 integrity issue on TMI-1 will determine whether the leak  
1753 rate issue changes previous staff positions on management  
1754 integrity.

1755 Regarding the steam generators at TMI-1, you will recall  
1756 that major tube leaks were discovered in November 1981,  
1757 about 95 percent of which are located within the upper tube  
1758 sheet.

1759 The cause of the leaks was traced to corrosion from sulfur  
1760 sources. After determining that a significant number of  
1761 tubes had defects, the licensee decided to seal all tubes to  
1762 the upper tube sheet using an explosive expansion repair  
1763 process.

1764 All of the tube expansions have been completed and cold  
1765 testing of the steam generators is in progress. The steam  
1766 generator is expected to be ready for hot testing in June  
1767 1983 following removal of residual sulfur by chemical  
1768 cleaning.

1769 If the results of these tests are acceptable, the licensee  
1770 expects the steam generators to be ready for return to  
1771 service in July 1983.

1772 On February 2, 1983, the licensee requested a license

1773 amendment to allow the repaired steam generators to be  
1774 declared operable, but recently withdrew that request.  
1775 The licensee will resubmit its request for such an  
1776 amendment after May 6, 1983, the effective date of the  
1777 "Sholly" regulations. After receipt of the application if  
1778 the staff proposes to make a determination that the  
1779 amendment does not involve a significant hazards  
1780 consideration, such a proposed determination will be noticed  
1781 for public comment and the Commonwealth of Pennsylvania will  
1782 be consulted.

1783 The notice would advise the public of their opportunity to  
1784 request a hearing. If no hearing is requested, the amendment  
1785 could be made immediately effective at the end of the  
1786 thirty-day comment period regardless of whether it does or  
1787 does not involve a significant hazards consideration and no  
1788 final determination on whether the amendment involves a  
1789 significant hazards determination is required.

1790 Moreover, even if a hearing is requested, and the  
1791 Commission makes a final determination following public  
1792 comment and state consultation that the license amendment  
1793 does not involve a significant hazards consideration, the  
1794 new authority in the "Sholly" provisions would permit the  
1795 Commission to issue an immediately effective license  
1796 amendment.

1797 However, if a hearing is properly requested and the

1798 Commission makes a final determination that the amendment  
1799 does involve a significant hazards consideration, the  
1800 hearing would have to be held before the license amendment  
1801 could be made effective.

1802 This concludes the Commission's prepared remarks, Mr.  
1803 Chairman. We have attached the responses to your specific  
1804 questions for inclusion in the record. We will be pleased to  
1805 answer any other questions you may have.

1806 However, I should point out that the hearing record  
1807 matters on TMI-1 are still before the Commission. Hence, we  
1808 should not be discussing the merits of the hearing issues  
1809 involved until the Commission has completed its findings.

1810 We also will not be able to discuss the details of matters  
1811 which are still under investigation.

1812 Mr. UDALL. Thank you. I will have very brief questions  
1813 because we submitted in advance the written questions  
1814 attached to your statement, and I think your answers  
1815 basically are responsive and fill most of my needs.

1816 I would like to ask whether your review of the B&W GPU  
1817 trial records include a compilation of documents relating to  
1818 pre-accident information possessed by GPU which indicated  
1819 that the pressurized of water level was not an adequate  
1820 indicator of a full pressure vessel.

1821 Chairman PALLADINO. I'm sorry; whether or not--

1822 Mr. UDALL. Whether review of this trial record included

1823 compilation of documents relating to pre-accident  
1824 information possessed by GPU which indicated that  
1825 pressurized water level is not an adequate indicator of the  
1826 full pressure vessel.

1827 Chairman PALLADINO. I don't know the answer to that.

1828 Mr. UDALL. Then I won't question you on it.

1829 Mr. STELLO. The trial record contained information on the  
1830 issue, as did the other studies. I think a fair conclusion  
1831 from those documents is that the pressurized level is indeed  
1832 not a good indicator of water level in the primary system.

1833 Mr. UDALL. That was the lesson that Davis Besse taught  
1834 you?

1835 Mr. STELLO. That's correct. All of the investigations have  
1836 come to that conclusion.

1837 Mr. UDALL. All right. Let me ask the Chairman one more  
1838 question. It would be a good thing, I believe, if you  
1839 planned to extend the comment period on the review of this  
1840 B&W/GPU trial record.

1841 We had a number of questions from other people, citizens  
1842 indicating they would like more time to comment.

1843 Can you tell us if you can grant an extension?

1844 Mr. STELLO. We have under preparation a proposed order  
1845 that would grant an extension. I haven't had a chance to see  
1846 what was proposed, but I had talked to General Counsel about  
1847 extending the date.

1848 Mr. UDALL. I'm glad you did that.

1849 Chairman PALLADINO. It will have to be approved by the  
1850 Commission, but I believe the Commission will be sympathetic  
1851 to that point.

1852 Mr. UDALL. Any questions? Mr. Smith?

1853 Mr. SMITH. They can't answer any questions about the  
1854 activity of the previous witnesses, so I see no reason to  
1855 ask them.

1856 Mr. UDALL. I have no objection if you try them--

1857 [Laughter.]

1858 Mr. SMITH. Everybody seems to have a conflict of interest  
1859 today. In your opinion, is the NRC operating in such a  
1860 manner that they can tell whether GPU is responding  
1861 correctly to what you have laid down and are your guidelines  
1862 too overburdensome for them?

1863 Are we going to get this mess cleaned up? That's obviously  
1864 going to come to a conflict, I suppose. My concern is there  
1865 have been some charges made by the gentlemen that were  
1866 former employees.

1867 Are you certain that those allegations that they made have  
1868 been properly taken care of by the NRC?

1869 Chairman PALLADINO. We have not yet conclude what needs to  
1870 be done. We do have the matter under investigation. We have  
1871 three parts to that investigation, one having to do with the  
1872 safety issues themselves regarding the polar crane and other

1873 activities affecting the safety of the cleanup, then there  
1874 were allegations about harassment and intimidation of the  
1875 workers involved, and there was also an allegation about the  
1876 collusion of the NRC with some of the activities going on.

1877 We have given to the Office of Investigation the  
1878 responsibility for coordinating the investigation of all  
1879 those points, utilizing the staff to assist with regard to  
1880 the safety items and our Office of Inspector and Auditor  
1881 that inspects internal activities--

1882 Mr. SMITH. Mr. Palladino, how many people do you have up  
1883 there on the TMI site now? Do you know that?

1884 Chairman PALLADINO. At the site I think we had about seven  
1885 at the site--15.

1886 Mr. SMITH. So you are monitoring very closely what's going  
1887 on in the cleanup, the training, or anything else that's  
1888 going on up there at this time?

1889 Chairman PALLADINO. Yes, sir. And we do intend to follow  
1890 up on the allegations. We consider them quite important and  
1891 want to make sure that we get correct answers.

1892 Mr. SMITH. Yes, sir. Thank you, Mr. Chairman.

1893 Mr. UDALL. We'll go to Mr. McCain, but first I'm obliged  
1894 to go to the majority. Mr. Seiberling?

1895 Mr. SEIBERLING. Thank you. Mr. Palladino, Mr. King has  
1896 made certain charges about the NRC's relationship with the  
1897 GPU and I'm reading now from his prepared statement, page

activities affecting the safety of the cleanup, then there were allegations about harassment and intimidation of the workers involved, and there was also an allegation about the collusion of the NRC with some of the activities going on.

We have given to the Office of Investigation the responsibility for coordinating the investigation of all those points, utilizing the staff to assist with regard to the safety items and our Office of Inspector and Auditor that inspects internal activities--

Mr. SMITH. Mr. Palladino, how many people do you have up there on the TMI site now? Do you know that?

Chairman PALLADINO. At the site I think we had about seven at the site--15.

Mr. SMITH. So you are monitoring very closely what's going on in the cleanup, the training, or anything else that's going on up there at this time?

Chairman PALLADINO. Yes, sir. And we do intend to follow up on the allegations. We consider them quite important and want to make sure that we get correct answers.

Mr. SMITH. Yes, sir. Thank you, Mr. Chairman.

Mr. UDALL. We'll go to Mr. McCain, but first I'm obliged to go to the majority. Mr. Seiberling?

Mr. SEIBERLING. Thank you. Mr. Palladino, Mr. King has made certain charges about the NRC's relationship with the BPU and I'm reading now from his prepared statement, page

1898 22:

1899 'It is not that NRC was visible--invisible on-site. The  
1900 NRC personnel took actions to make themselves look good with  
1901 the public, but they cracked down on issues that were stale  
1902 or represented nitpicking at the same time they were  
1903 relatively passive about organizational defects such as  
1904 inadequate trending, preparation of procedures, engineering  
1905 and QA coverage, audits, failure to follow through on  
1906 surveillances and similar weaknesses.'

1907 Would you care to comment on that?

1908 Chairman PALLADINO. I don't have specific responses to the  
1909 allegations. We are investigating that and we do want to  
1910 make sure that what comes out of it will represent the  
1911 facts, as we understand them.

1912 Now, we do have Mr. Lake Barrett from our TMI office in  
1913 the Middletown area and perhaps he might be able to add to  
1914 that, if he would like.

1915 Mr. SEIBERLING. Yes. If Mr. Barrett would add to it, fine.

1916 Mr. BARRETT. ~~Well,~~ <sup>Our</sup> job at the site is to check that  
1917 GPU does its most important job, and as we see it, that is  
1918 maintain public health and safety.

1919 We also want to see the cleanup done as expeditiously as  
1920 possible. There is some finite risk with the present  
1921 conditions. We believe it is small but nonetheless the plant  
1922 is in an undesigned-for condition <sup>with</sup> the core ~~is~~ rubble <sup>State.</sup> ~~and~~

N/A

1923 <sup>The risk associated with this condition</sup>  
~~that~~ needs to be eliminated when ~~it~~<sup>it</sup> is removed from  
 1924 the site. <sup>and that will be accomplished</sup>

1925 I have a highly qualified staff there. They follow all  
 1926 that GPU does very closely. I personally sign all major  
 1927 cleanup steps--I signed about a thousand <sup>documents</sup> ~~things~~ last year.  
 1928 About 10 percent of those I rejected because they did not  
 1929 meet my safety standards.

1930 In my personal opinion I do not think I nitpick, <sup>al</sup> though  
 1931 GPU may think so sometimes; <sup>W</sup> ~~and~~ we try to <sup>focus on</sup> ~~hit~~ what we  
 1932 consider the main safety issues.

1933 There <sup>are</sup> engineering judgments in almost everything that is  
 1934 done at that Island. ~~and~~ We try to exercise our judgment <sup>in</sup> the  
 1935 <sup>Public's</sup> ~~best~~ interest as well as <sup>we</sup> can.

1936 Mr. SEIBERLING. Let me ask you this: It's the following  
 1937 statement by Mr. King: "Around the time of my suspension  
 1938 and dismissal I spoke with NRC officials on numerous  
 1939 occasions. Their behavior left me disillusioned. One problem  
 1940 is that they refused to investigate certain issues such as  
 1941 reprisals against those who challenge safety problems. To  
 1942 illustrate, I told NRC site representatives that the company  
 1943 was responding to Mr. Gischel's concerns by trying to get  
 1944 him to take some kind of psychiatric test. The NRC men said  
 1945 they could not look into that because it was an internal  
 1946 matter. I thought internal retaliations against those who  
 1947 defend the law is a public matter as well."

Can you comment on that?

Mr. BARRETT. I'm a member of the technical staff <sup>With</sup> of the <sup>Safety</sup> NRC. We were looking at the technical <sup>M</sup> issues. ~~Regarding~~ Most of the <sup>issues</sup> things Mr. Parks' referred to ~~X~~ they were things that were going to happen in the future and had not yet come to the NRC. <sup>for action</sup>

For example, the vast majority of the <sup>issues</sup> things that he talked about <sup>involved</sup> the polar crane <sup>W</sup> that I told Mr. Parks in our meeting was that he did not have any new issues that were not already under <sup>Consideration</sup> ~~consideration~~ and review by the NRC ~~itself~~ and GPU. ~~and~~ I was not going to go in, as the NRC, and pick one side or the other, before Public Utilities had made up their mind on the various documents on the polar <sup>Crane</sup> ~~claim~~.

Mr. SEIBERLING. Mr. King also says, "My most serious concerns involve NRC licensee collusion. It was well known the NRC worked out the contents of NRC public letters in advance with site management." Then he cites an instance when you called Mr. Kanga to inform him that you were going to send GPU a letter about a particular violation and Mr. Kanga told you that Mr. King was there and turned on the box for a conference call. Mr. Kanga told you, "Well"--I'll just read it, "Mr. Kanga told Mr. Barrett how site management would publicly respond to the letter if it was sent as Mr. Barrett described. The NRC did not send the letter."

1973 Do you care to comment on that?

1974 Mr. BARRETT. I was not here earlier to hear the details on  
1975 that.

1976 Mr. SEIBERLING. I just read them to you.

1977 Mr. BARRETT. I don't recall specifically that one. I will  
1978 say this, as issues come up on the Island, GPU is well aware

1979 through interchange between my staff and ~~your~~ <sup>their</sup> staff, ~~and~~ <sup>as well as</sup> direct

1980 ~~of~~ <sup>of</sup> issues that we are concerned with. <sup>Communications</sup>

1981 As ~~far~~ <sup>for</sup> as inspection reports and ~~things like that~~, we do <sup>Other similar documents</sup>

1982 not take our drafts ~~of inspection reports~~ to GPU ahead of

1983 time. ~~There have been issues we've spoken to them before,~~

1984 ~~that~~ If I ~~see~~ see their performance ~~was~~ slipping <sup>in a specific area, I</sup>

1985 example, <sup>quality</sup> on procedure ~~several~~ several months ago, I did <sup>will speak</sup>

1986 caution Mr. Kanga that his performance was slipping. <sup>To them about it before</sup>

1987 did not take appropriate action, the NRC would start <sup>if he sending</sup> taking

1988 further action besides just disapproving some of the <sup>written communication</sup>

1989 procedures. <sup>I told him that</sup>

1990 Mr. SEIBERLING. Mr. Palladino, do you care to comment on  
1991 these other points that I just read?

1992 Chairman PALLADINO. Mr. Seiberling, I think it would be  
1993 appropriate for me to refrain from comment because we do have  
1994 an investigation under way and I would not want to prejudice  
1995 the outcome.

1996 Mr. SEIBERLING. Let me just ask you this: Do you feel from  
1997 the standpoint of NRC that whistleblowers--that it's

1998 undesirable that whistleblowers be penalized by the  
1999 licensee?

2000 Chairman PALLADINO. No, I do not believe they should be  
2001 penalized in any way. As a matter of fact, in my lectures as  
2002 Dean of the College of Engineering at Penn State, I used to  
2003 discuss the question of whistleblowers and the problems they  
2004 faced and the important role that they can play, and the  
2005 responsibilities that engineers have with regard to being  
2006 honest about the work that they are doing or that they see  
2007 going on or being carried on in the organization in which  
2008 they work.

2009 Mr. SEIBERLING. Is NRC investigating these particular  
2010 dismissals?

2011 Chairman PALLADINO. We are investigating the allegations  
2012 and I am sure that the particular questions--yes, that is  
2013 part of the harassment issue.

2014 Mr. SEIBERLING. Thank you.

2015 Mr. UDALL. Mr. McCain?

2016 Mr. MCCAIN. Just one question, Mr. Chairman. Obviously,  
2017 one of the major allegations here is the management  
2018 practices and the disregard of safety and sound management  
2019 ideas.

2020 It seems to center around differences of opinion as to how  
2021 this work is being done. Bechtel Corporation plays a major  
2022 role in this cleanup operation. I would just like your

2023 comments on that company's past performance and ongoing  
2024 performance in the work on nuclear reactors.

2025 Chairman PALLADINO. My general impression is Bechtel has  
2026 made very effective contributions in a number of reactor  
2027 plants. The organization that has been set up for the TMI  
2028 cleanup includes an integration of the talents of B&W and  
2029 GPU, so that they can try to do their job as effectively as  
2030 possible.

2031 Mr. UDALL. Last week I sent you a letter, Chairman  
2032 Palladino, asking for certain information at this hearing.  
2033 One of the requests was please provide a Commission  
2034 statement regarding the significance of the PORV problem in  
2035 Unit 1, the extent to which the Commission believes  
2036 corrosion extends to other reactor components and the  
2037 Commission's plans to resolve this matter before rendering a  
2038 decision on the restart off TMI-1.

2039 Can you give me a quick answer or submit something for the  
2040 record on that?

2041 Chairman PALLADINO. With respect to the PORVs, there was  
2042 some pitting noticed on the original PORV. It was replaced.  
2043 Unfortunately, the solvent used seem to mask whether or not  
2044 this came from the sulfur that was introduced into the  
2045 system, but later they noticed pitting on the second one and  
2046 that was replaced.

2047 It's my knowledge now the third one seems to be in good

2048 shape. It at least wasn't in the system when the sulfur was  
2049 introduced.

2050 Mr. SEIBERLING. Will the gentleman yield on that one? How  
2051 did sulfur get in the system?

2052 Chairman PALLADINO. Well, the spray system has sodium  
2053 thiosulfate in it. The pumps used in that system are also  
2054 used to mix the borated water system.

2055 Somehow there was leakage from one system to another that  
2056 got into the borated water tank and some of that was  
2057 inadvertently introduced into the system somewhere along the  
2058 line.

2059 Mr. UDALL. This is not happening just for being a nuclear  
2060 plant of this kind, this is something connected with the  
2061 cleanup?

2062 Chairman PALLADINO. No, this had nothign to do with the  
2063 cleanup.

2064 Mr. UDALL. This could happen to other B&W reactors?

2065 Chairman PALLADINO. Yes, I think there were three reactors  
2066 that used sodium thiosulfate. I'm not sure now whether any  
2067 of them are still using it. Perhaps one of the members of he  
2068 staff would know.

2069 None of them have anymore.

2070 Mr. SEIBERLING. This happened before the '79 incident, is  
2071 that right?

2072 Chairman PALLADINO. No, this has been since the '79

2073 incident while the plant has been in a shutdown condition.

2074 This is in unit 1.

2075 Mr. SEIBERLING. Thank you.

2076 Chairman PALLADINO. GPU has investigated all the parts of  
2077 this system including lifting the head and making  
2078 examinations or other inconel parts that might have been  
2079 similarly affected, and to the best of my knowlege, no  
2080 impact on other components was noted.

2081 Mr. UDALL. This was a question related to TMI. Before we  
2082 let you go--and I appreciate your staying with us so long  
2083 this morning--do any of the other Comissioners have anything  
2084 to add? Mr. Gilinsky now and then takes a different  
2085 position, I've been told.

2086 Commissioner GILINSKY. I don't think I have anything to  
2087 add at this time, Mr. Chairman.

2088 Mr. UDALL. Thank you very much; we appreciate your help.

2089 Chairman PALLADINO. Thank you, Mr. Chairman.

2090 Mr. UDALL. We will now proceed to the testimony of GPU--Mr  
2091 Dieckamp, Mr. Arnold, Mr. Sanford, and Mr. Kanga.