Improper Divulgence: How Distrust and Poor Reporting Influenced Civilians Views of the Three Mile Island Incident

By: Dylan Cumbo



Experience Prior

- Atomic experiences earlier stages of the Cold War
- Connections between nuclear reactors and bombs
- Discussion of the invisible danger of radiation



Figure 1: "Gray Scale of Explosion on the Beach." https://www.pexels.com/photo/grayscale-photo-of-explosion-on-the-beach-73909/.

 Talks on casualties caused by nuclear meltdowns



March 28th, 1979

- Not initially intended for its Pennsylvanian location
- Result of both technical and human error
 - Faulty closing of key valve
 - Inability to distinguish true problem
- Thousands of civilians evacuated the immediate and surrounding region



Figure 2: "Three Mile Island." https://www.flickr.com/photos/todd_macdonald/2254065684.



Official/Media Presentation

- Various officials reported on incident
 - Joseph Hendrie
 - Dick Thornburgh
 - Harold Denton
- Seeming lack of concern from Met-Ed and Nuclear Regulatory Commission
- News outlets had difficulty describing the incident
- Lofty and grandiose statements made by both groups



Figure 3:: "President Carter Visits TMI-2 in 1979." https://www.flickr.co m/photos/nrcgov/744 7159200.

Figure 4: "Mr. Dick Thornburgh." https://picryl.com/media /mr-dick-thorngurghgovernor-of-Pennsylvania-speaksduring-thecommissioning-f6ceeb.



"How Many Watts is this Kid Worth"

- Bystanders lacked understanding of what truly was happening
- Worried about being used as experiments
 - Reports of various symptoms relating to contamination
- Disapproval expressed via newspapers and public demonstrations
- Repercussions for children were a central concern



Figure 5: "Crowd at Rally. Anti-Nuke Rally in Harrisburg (Pennsylvania) at the Capitol." https://jenikirbyhistory.getarchive.net/media/crowdat-rally-anti-nuke-rally-in-Harrisburg-Pennsylvania-at-the-capitol-nara-674d77.





- Stipulations implemented by President Carter and the United States Government
- Nuclear Regulator Committee recognized changes were needed
- Significant decrease in the number of approved reactor licenses and facilities



Bibliography: Primary

	ABC News. "Three Mile Island, Nuclear Power Plant Accident: March 28, 1979" (news broadcast), March 12, 2011. www.youtube.com/watch?v=eGI7vmiSho.	"Letters to the Editor." The Daily Collegian, April 04, 1979.
•	ABC News. "Three Mile Island, Safety Fears in 1979" (news broadcast) March 12, 2011. www.youtube.com/watch?v=2VRdkTvv878.	"Letters to the Editor." The Daily Collegian, April 06, 1979.
•		"Letters to the Editor." The Daily Collegian, April 24, 1979.
	Anglestein, Dick. "Farm Family Scrapbook Recalls TMI." Lancaster Farming March 15, 1980.	Lyons, Richard D. "Nuclear Plant Shutdown: Possible Blessing." The New York Times, April 11, 1979.
	"Around the Nation" The New York Times, September 29, 1979.	Lyons, Richard D. "Antinuclear Politicking Makes Odd Bedfellows." The New York Times, May 13, 1979.
	Aryes, Drummond. "Three Mile Island: Notes From a Nightmare: Three Mile Island: A Chronicle of the Nation's Worst Nuclear-Power Accident." The New York Times, April 16, 1979.	McSweeney, William T. "The Alternatives won't be Easy." The Daily Collegian, April 05, 1979.
	Boyd, Nancy. "Radiation Threat Closes Campus." The Daily Collegian, April 02, 1979.	"NRC: Mishap Might Have Been Prevented." The Daily Collegian, August 03, 1979.
	Boyd, Nancy and Mike Sillup. "Students Concerned about Families Safety." The Daily Collegian, April 02, 1979.	"Nuclear Plant Accident Leaks Radioactive Material." The Daily Collegian March 29, 1979.
	Carter, Luther J. "Political Fallout from Three Mile Island." Science 204, no. 4389 (April 1979): 154-155.	Nuclear Regulatory Commission. 1979 Annual Report. United States Nuclear Regulatory Commission, 1979.
	"Carter Says Evacuation Possible." The Daily Collegian, April 02, 1979.	"Official: Accident Data Leaking." The Daily Collegian, April 13, 1979.
	CBS. "March 28, 1979: Three Mile Island Nuclear Power Plant Accident" (news broadcast), March 27, 2019. https://www.youtube.com/watch?v=Ev6IJOIROto.	"Psychological Effect of TMI Mishap Unknown." The Daily Collegian, July 23, 1979.
	"Communications Meltdown." The Daily Collegian, April 02, 1979.	Armbruster, Tom. "Reactions: Opinions Differ on Nuclear Situation." The Daily Collegian, April 02, 1979.
	Fischiler, Maia. "Anti-Nuclear Protests Hit Area." The Daily Collegian, April 02, 1979.	Rather, Andy. "The Real Energy Danger: America's Reactors." The Daily Collegian, April 05, 1979.
	"Future of Nuclear Power Questioned by Thornburgh." The Daily Collegian, April 24, 1979.	"Tennessee Ecologists Finds No Radiation in the Plants or Animals Near TMI." Susquehanna Times May 09, 1979.
	"Governor's Advisory May be Lifted." The Daily Collegian April 09, 1979.	"Tests of Radiation Find Levels Normal." <i>The New York</i> Times, April 11, 1979.
	Hampton, Wilborn. Meltdown: A Race Against Nuclear Disaster at Three Mile Island A Reporter's Story. Cambridge, MA: Candlewick Press, 2001.	"Three Mile Island and the American System." The New York Times, April 10, 1979.
	Harmon, Mark. "A Million Years Came Sooner than They'd Expected." The Daily Collegian April 09, 1979.	"TMI Radiation Levels Uncertain, Report Says." The Daily Collegian August 01, 1979.
	"Hydrogen Bubble Eases; Authorities Remain Ready." The Daily Collegian, April 03, 1979.	"Safety Steps Ordered at Three Mile Island and 5 Similar Plants." The New York Times, April 22, 1979.
	"In the Wake of Three Mile Island," Science News 115, no. 18 (May 1979): 292.	WITF. "Three Mile Island Press Conference Approximately 48 Hours after Accident" (press conference) February 7, 2019. www.youtube.com/watch?v=URD6_ILrPQg.
	Krieg, Dieter. "Atomic Mishap Turned Some Farmers Off." Lancaster Farming April 14, 1979.	WITF. "Three Mile Island Press Conference with Met Ed after Accident – March 29, 1979" (news broadcast) March 7, 2019. www.youtube.com/watch?v=K2aUaU7u4iY. "WSDC Agrees with Drinnan's Reer-Pipeline" <i>C. C. Reader</i> May 17, 1979
	Krieg, Dieter. "Those Puffs of Radiation May Have Made Us More Aware of our Blessings, as Well as our Shortcomings. If Three Mile Island Taught us Anything, it Should Simply be that God's Creations are Fragile and need to be respected." <i>Lancaster Farming</i> April 14, 1979.	"WSDC Agrees with Drinnan's Beer-Pipeline." C. C. Reader May 17, 1979.
		WNEP. "Video Vault: 1979 Three Mile Island" (news broadcast), March 28, 2018. www.youtube.com/watch?v=rCJbmUGoXXu.



Bibliography: Secondary

- Boscarino, Jessica E. "From Three Mile Island to Fukushima: the Impact of Analogy on Attitudes Toward Nuclear Power." *Policy Sciences* 52, no. 1 (March 2019), pg 21-42.)
- Bot, Pierre Le. "Human Reliability Data, Human Error and Accident Models-Illustration Through the Three Mile Island Accident Analysis." *Reliability Engineering & System Safety* 83, no. 2 (February 2004), pg 153-167.
- Bromet, E. J. & M. A. Dew. "Predictors of Temporal Patterns of Psychiatric Distress During 10 Years Following the Nuclear Accident at Three Mile Island." *Social Psychiatry and Psychiatric Epidemiology* 28 (March 1993), pg 49-55.
- Bullard, Stephan, and Thomas Filburn. *Three Mile Island, Chernobyl and Fukushima: Curse of the Nuclear Genie.* Switzerland: Springer International Publishing, 2016.
- Cooke, Stephanie. In Mortal Hands: A Cautionary History of the Nuclear Age. New York: Bloomsbury, 2009.
- Conze, Eckart, Martin Klimke, and Jermey Varon. *Nuclear Threats, Nuclear Fear, and the Cold War of the 1980s.* New York: Cambridge University Press, 2017.
- Friedman, Sharon M. "Three Mile Island, Chernobyl, and Fukushima: An Analysis of Traditional and New Media Coverage of Nuclear Accidents and Radiation." *Bulletin of Atomic Scientists* 67, no. 5 (2011), pg 55-65.
- Gilinsky, Victor. "The Impact of Three Mile Island." Bulletin of the Atomic Scientists 36, no. 1 (January 1980), pg 18-20.
- Goldstein, Raymond L., Karen Goldstein, and John K. Schorr. "Trust and its Relationship to Psychological Distress: The Case
 of Three Mile Island." *Political Psychology* 13, no. 4 (Dec 1992), pg 693-707.
- Hogberg, Lars. "Root Causes and Impacts of Severe Accidents at Large Nuclear Power Plants." Ambio 42, no. 3 (April 2013), pg 267-284.
- Holzman, David C. "Cancer and Three Mile Island: No Significant Increase in Five-Mile Radius." *Environmental Health* Perspectives 111, no. 2 (March 2003), pg 166-167.
- Hopkins, Andrew. "Was Three Mile Island a 'Normal Accident?" *Journal of Contingencies and Crisis Management* 9, no. 2 (December 2002), pg 65-72.
- Hultman, Nathan, and Johnathon Koomey. "Three Mile Island: The Driver of US Nuclear Power's Decline." Bulletin of Atomic Scientists 69, no. 3 (2013), pg 63-70.
- Koerner, Cassandra L. "Media, Fear, and Nuclear Energy: A Case Study." The Social Science Journal 51, no. 2 (2014) pg 240-249.

- Mahaffey, James. Atomic Accidents: A History of Nuclear Meltdowns and Disasters from the Ozark Mountains to Fukushima. New York: Pegasus Books, 2014.
- Marguet, Serge. A Brief History of Nuclear Reactor Accidents: From Leipzig to Fukushima. Switzerland: Springer International Publishing, 2022.
- Martin, Daniel. *Three Mile Island: Prologue or Epilogue*. Cambridge, MA: Ballinger Publishing Company, 1980.
- Mamun, M. M. A. "Recent Fukushima Nuclear Detonation, Chernobyl Nuclear Fallout, Three Mile Island Nuclear Accident and Atomic Bomb Explosion – Rethinking the Effects of Nuclear Radiations over Human Health." *International Journal of Radiation Research* 11, no. 2 (April 2013), pg 63-80.
- Mitchell, X. M. "The Cosmology of Evidence: Suffering, Science, and Biological Witness After Three Mile Island." *Journal of the History of Biology* 54, no. 1 (April 2021), pg 7-29.
- NRCgov. "Moments in NRC History: Three Mile Island March 28, 1979" (video) April 8, 2013. www.youtube.com/watch?v=SUct_69kNpQ.
- Osif, Bonnie A, Anthony J. Baratta, and Thomas W. Conkling. TMI 25 Years Later: The Three Mile Island Nuclear Power Plant Accident and its Impact. University Park, PA: Pennsylvania State University Press, 2004.
- Thompson, Nicholas. "Nuclear War and Nuclear Fear in the 1970s and 1980s." *Journal of Contemporary History* 46, no. 1 (January 2011), pg 136-149.
- Zaretsky, Natasha. Radiation Nation: Three Mile Island and the Political Transformation of the 1970s. New York: Columbia University Press, 2018.
- Walker, Samuel J. *Three Mile Island: A Nuclear Crisis in Historical Perspective*. Berkeley, CA: Un California Press, 2004.
- Weart, Spencer R. The Rise of Nuclear Fear. Cambridge, MA: Harvard University Press, 2012.

