



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

COPY

JUL 23 2009

OFFICE OF  
AIR AND RADIATION

Dr. David Moody, Manager  
Carlsbad Field Office  
U.S. Department of Energy  
P.O. Box 3090  
Carlsbad, NM 88221-3090

Dear Dr. Moody:

I am writing in response to your request of May 28, 2009 (and delivery of all related attachments on July 21, 2009), for the U.S. Environmental Protection Agency (EPA) to approve your Dark Matter Time Projection Chamber (DM-TPC) experiment. We have completed our review and approve your request.

Your submission notes that the DM-TPC's overall goal is to directly observe Weakly Interacting Massive Particles in the laboratory to better understand the nature of Dark Matter, in addition to gaining experience and probing for radiation backgrounds not yet encountered. This experiment will be placed in the northern experimental area located in the Waste Isolation Pilot Plant (WIPP) underground. The experiment will be conducted by several collaborators and led by Boston University, Brandeis University, and the Massachusetts Institute of Technology.

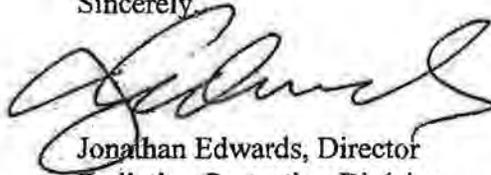
EPA's technical review has concluded that this experiment has little potential to impact waste handling and disposal operations and that few new materials will be introduced that would cause safety concerns related to WIPP operations. EPA requests a copy of the researcher's assembly and set-up, step-by-step procedure (when available), and the results of WIPP's facility Industrial Safety organization review and approval to ensure that our record is complete.

As we have stated in previous approval letters, our consideration or approval of emplacement of any experiments is based solely on technical grounds in accordance with 40 CFR Part 194. Please be advised that any consideration or approval does not in any way constitute a determination that DOE has statutory authority under the WIPP Land Withdrawal Act to conduct such activities, nor is this letter intended to indicate in any manner the Agency's opinion on this issue.

UNIQUE # DOE UIC DATE REC'D ADDRESSEES  
5-16-09  
JUL 23 2009  
See list on we back  
Sokolov

If you have any questions about this guidance, please contact Tom Peake at (202) 343-9765.

Sincerely,



Jonathan Edwards, Director  
Radiation Protection Division

cc: Russ Patterson, DOE/CBFO  
George Basabilvaso, DOE/WIPP  
Alton Harris, DOE/HQ  
Steve Zappe, NMED  
Tom Kesterson, NMED Carlsbad  
Nick Stone, EPA Region 6  
EPA WIPP Team  
Jerry Puskin, EPA

K. Brisbin - 224 ✓ <i>SSoto</i>	Wipp Ope Record - 452 ✓ 09	
A. Cooper - 220 ✓	L. Pastorell - 109 ✓	
M. Gee - 222 ✓	R. Chavez - 109 ✓	
G. Sena - 226 ✓	A. Chaver - 109 ✓	
K. Squires - 221 ✓	T. Klien - 109 ✓	
P. Gilbert/LANL - M&RC ✓	A. Pangle - CTAC	

0902051

**Biscaino, Debra - WRMS (Records Center)**

---

**From:** Cooper, Andrea on behalf of Moody, Dave C. - DOE  
**Sent:** Wednesday, July 22, 2009 4:25 PM  
**To:** Bradford, Aubrey Earl - CTAC; Casey, Steve - DOE; Castaneda, Norma - DOE; Chavez, Art V.; Chavez, Rick; Chism, Lea - DOE; DL DOE Directors; DOE M&RC; Farrell, Richard - DOE; Ford, John - DOE; Gadbury, Casey - DOE; Galbraith, Don - DOE; Gilbert, Patsy - LANL; Lyshik, Gwen - LANL; McCauslin, Susan; Miehl, Dennis - DOE; Most, Wille; Navarrete, Martin - DOE; Pangle, Allison - CTAC; Pastorello, Linda; Patterson, Russ - DOE; Plum, Jody - DOE; Roush, Parrish; Squires, Kristi - DOE; Stroble, J. R. - DOE; Watson, Kerry - DOE; Wierzbicki, William; Yocum, Patrick  
**Subject:** Letter transmitting EPA's approval for the Dark Matter Time Projection Chamber Experiment  
**Attachments:** DME\_72109.pdf



DME\_72109.pdf  
(118 KB)

—Original Message—

**From:** Lee.Raymond@epamail.epa.gov [mailto:Lee.Raymond@epamail.epa.gov]  
**Sent:** Wednesday, July 22, 2009 1:45 PM  
**To:** Moody, Dave C. - DOE  
**Cc:** Patterson, Russ - DOE; Basabilvazo, George - DOE; Harris, Alton; Zappe, Steve; Kesterson, Thomas; Stone, Nick; Puskin.Jerome@epamail.epa.gov; Peake.Tom@epamail.epa.gov; Byrum.Charles@epamail.epa.gov; Ghose.Shankar@epamail.epa.gov; Eagle.Mike@epamail.epa.gov; Bender.Lindsey@epamail.epa.gov; Feltcorn, Ed; Joglekar, Rajani; Walsh.Jonathan@epamail.epa.gov; Perrin.Alan@epamail.epa.gov; Edwards.Jonathan@epamail.epa.gov  
**Subject:**

Hello,

Attached you will find a letter transmitting EPA's approval for the Dark Matter Time Projection Chamber Experiment. If you have any problems opening the .pdf, please let me know.

Sincerely,

Ray Lee  
Radiation Protection Division  
Center for Radiation Information & Outreach  
(202) 343-9463

(See attached file: DME\_72109.pdf)