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J.R. Kelly
Public Counsel

August 5, 2009

Ms. Ann Cole
Commission Clerk and Administrative Services
Room 100, Easley Building
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Re: Docket No. 090009-EI

Dear Ms. Cole:

Enclosed for filing, on behalf of the Citizens of the State of Florida are the original and 15 copies of the REDACTED testimony of Dr. William R. Jacobs relating to Progress Energy Florida in this docket.

This testimony was originally filed on July 15, 2009 in confidential and un-redacted form. Parties to the docket who are involved in contesting the PEF aspect of the filings in this docket and who executed non-disclosure agreements were served with a copy of the confidential version of the testimony. A copy of this redacted version of the testimony is being served via CD to all parties to the docket.

Please indicate the time and date of receipt on the enclosed duplicate of this letter and return it to our office.

Sincerely,

Charles J. Rehwinkel
Associate Public Counsel

COM 5
ECR 2
GCL 2
OPC
RCP 2
SSC
SGA 1
ADM
CLK 1

Enclosures

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Nuclear Cost Power Plant Recovery Clause	Docket No. 090009-EI
	FILED: July 15, 2009

~~(CONFIDENTIAL VERSION)~~ REDACTED

DIRECT TESTIMONY

OF

WILLIAM R. JACOBS, JR., Ph.D.

ON BEHALF OF THE CITIZENS OF

THE STATE OF FLORIDA

REVIEW OF PROGRESS ENERGY FLORIDA'S

NUCLEAR COST RECOVERY RULE FILING

J.R. Kelly
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c/o The Florida Legislature
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Attorney for the Citizens
Of the State of Florida

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TABLE OF CONTENTS

EXHIBITS

DIRECT TESTIMONY

Of

WILLIAM R. JACOBS JR., Ph.D.

On Behalf of the Office of Public Counsel

Before the

Florida Public Service Commission

Docket No. 090009-EI

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.

A. My name is William R. Jacobs, Jr., Ph.D. I am a Vice President of GDS Associates, Inc. My business address is 1850 Parkway Place, Suite 800, Marietta, Georgia, 30067.

Q. DR. JACOBS, PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A. I received a Bachelor of Mechanical Engineering in 1968, a Master of Science in Nuclear Engineering in 1969 and a Ph.D. in Nuclear Engineering in 1971, all from the Georgia Institute of Technology. I am a registered professional engineer and a member of the American Nuclear Society. I have more than thirty years of experience in the electric power industry including more than twelve years of power plant construction and start-up experience. I have participated in the construction and start-up of seven power plants in this country and overseas in management positions including start-up manager and site manager. As a loaned employee at the Institute of Nuclear Power Operations ("INPO"), I participated in the Construction Project

Evaluation Program, performed operating plant evaluations and assisted in development of the Outage Management Evaluation Program. Since joining GDS Associates, Inc. in 1986, I have participated in rate case and litigation support activities related to power plant construction, operation and decommissioning. I have evaluated nuclear power plant outages at numerous nuclear plants throughout the United States. I am currently on the management committee of Plum Point Unit 1, a 650 MWe coal fired power plant under construction near Osceola, Arkansas. As a member of the management committee, I assist in providing oversight of the EPC contractor for this project. My resume is included as Exhibit WRJ(PEF)-1.

Q. WERE YOU ASSISTED BY OTHER GDS PERSONNEL IN THIS EFFORT?

A. Yes I was. The GDS team involved in the review and evaluation of the requests for authorization to recover costs consisted of me, Mr. James P. McGaughy, Jr., a former nuclear utility executive with over 37 years or experience and Mr. Cary Cook, a Certified Public Account with extensive experience in utility regulation. The resumes of Mr. McGaughy and Mr. Cook are attached to this testimony.

Q. WHAT IS THE NATURE OF YOUR BUSINESS?

A. GDS Associates, Inc. ("GDS") is an engineering and consulting firm with offices in Marietta, Georgia; Austin, Texas; Corpus Christi, Texas; Manchester, New Hampshire; Madison, Wisconsin, Manchester, Maine; and Auburn, Alabama. GDS provides a variety of services to the electric utility industry including power supply planning, generation support services, rates and regulatory consulting, financial analysis, load forecasting and statistical services. Generation support services provided by GDS include fossil and nuclear plant monitoring, plant ownership

feasibility studies, plant management audits, production cost modeling and expert testimony on matters relating to plant management, construction, licensing and performance issues in technical litigation and regulatory proceedings.

Q. WHOM ARE YOU REPRESENTING IN THIS PROCEEDING?

A. I am representing the Florida Office of Public Counsel.

Q. WHAT WAS YOUR ASSIGNMENT IN THIS PROCEEDING?

A. I was asked to assist the Florida Office of Public Counsel to conduct a review and evaluation of requests by Progress Energy Florida (PEF) for authority to collect historical and projected costs associated with extended power uprate ("EPU") project being pursued at Crystal River Unit 3, and historical and projected costs associated with PEF's Levy County Units 1 and 2 project ("LNP") through the capacity cost recovery clause.

II. SUMMARY OF AUTHORIZATION TO COLLECT COSTS REQUESTS FOR

Q. PLEASE SUMMARIZE PEF'S REQUEST FOR COST RECOVERY IN THIS DOCKET UNDER THE NUCLEAR COST RECOVERY CLAUSE.

A. PEF is requesting in its original filing recovery of $446.3 million in 2010. This includes projected total revenue requirements of $142.2 million for calendar year 2010 and recovery of the actual/estimated under recovery from 2009 of $303.8 million. In addition, PEF has stated its willingness to amortize the year end under-recovery balance for 2009 over a 5 year period. This would reduce PEF's revenue requirements for 2010 from $446.3 million to $236.4 million.

III. METHODOLOGY

Q. PLEASE DESCRIBE THE METHODOLOGY THAT YOU USED TO REVIEW AND EVALUATE THE REQUESTS FOR AUTHORIZATION TO COLLECT COSTS SUBMITTED BY PEF UNDER THE NUCLEAR COST RECOVERY CLAUSE.

A. I first reviewed the Company's filings in this docket and assisted in the issuance of numerous interrogatories and requests for production of documents. To evaluate the contracting process employed by the Company, I reviewed requests for proposals issued by the Company, the bid evaluations conducted on proposals received in response to the requests for proposals and the contracts awarded to the winning bidders. For single or sole source contracts, I reviewed the single or sole source justifications to ensure that they met the requirements of the governing company procedures.

To evaluate the issues related to project schedule and risk management, I reviewed many internal documents, status reports and correspondence with regulatory authorities.

Following my review of the documents produced by PEF, I assisted Office of Public Counsel attorneys in deposing PEF witnesses to further explore areas of interest.

Q. HOW DID YOU DETERMINE IF THE COSTS REQUESTED FOR RECOVERY BY THE COMPANIES WERE PRUDENT AND REASONABLE?

A. The Company must employ prudent contracting and project management and risk management procedures and practices to ensure that the costs are prudently incurred. The scope of work must be reasonable and the Company must ensure that the costs

are reasonable by means of competitive bidding or other methods such as comparisons with similar projects for which the cost is known. I also reviewed the project management procedures and practices that will be used in an effort to prudently manage the projects as they move into the implementation stage.

In addition to the above reviews, Mr. Cary Cook reviewed the requests to ensure proper accounting treatment and accurate calculation of the various amounts requested for recovery by the Company.

Q. PLEASE DESCRIBE YOUR REVIEW OF THE PROJECT MANAGEMENT PROCEDURES AND PRACTICES UTILIZED BY PEF.

A. As the projects move into the implementation phase, prudent project management and risk mitigation will be important to ensure that projects are completed on schedule and within budget. Project management procedures and practices reviewed include establishment of project budgets, monitoring of budget variances, corrective actions for budget variances, establishment of project schedules, and monitoring of project schedule variances and corrective action for schedule variances.

IV. ISSUES AND CONCERNS

Q. PLEASE DESCRIBE THE ISSUES AND CONCERNS THAT YOU IDENTIFIED FROM YOUR REVIEW OF PEF'S REQUEST

A. I have identified issues and concerns in both the LNP and the EPU projects that raise questions concerning the sufficiency of PEF's demonstration that its risk-related decision making was adequate under the circumstances. While the Company has identified numerous risks with both projects, it is not clear that the Company has met

its burden to demonstrate that these risks have been adequately considered when making critical project decisions.

Q. PLEASE DESCRIBE EXAMPLES YOU HAVE IDENTIFIED WHERE PEF HAS FAILED TO DEMONSTRATE THAT IT HAS APPROPRIATELY MANAGED RISK RELATED TO THE LEVY NUCLEAR PROJECT.

A. Examples of where PEF has failed to demonstrate adequate risk management that I have identified at this time include the signing of the EPC contract with many known risks and the failure to perform an adequate feasibility analysis as required by Rule 25-6.0423(5)(c)5 and (8), F.A.C., which is part of the Nuclear Cost Recovery Rule ("NCRR").

ENGINEERING, PROCUREMENT AND CONSTRUCTION (EPC) CONTRACT SIGNING

Q. PLEASE DESCRIBE YOUR CONCERNS WITH THE SIGNING OF THE EPC CONTRACT.

A. PEF executed the EPC contract with the consortium of Westinghouse Electric Company / Shaw, Stone, Webster (WEC/SSW) on December 31, 2008. In the months immediately preceding the time of EPC contract execution, PEF had identified many significant risks to the LNP project. Signing such a huge contract with so many risky issues remaining unresolved or the outcomes not fully understood can lead to renegotiation that can make the overall project cost more expensive. This has now happened less than four months after the signing. These unresolved risky issues include:

1. PEF had not received a schedule from the NRC for the NRC's review and approval of a requested Limited Work Authorization (LWA). The approval of the LWA was needed to construct the project on the schedule included in the EPC contract and upon which the contract pricing was based. This occurred despite the fact that the NRC had expressed serious doubt about the schedule on October 6, 2008. (NRC Letter Brian Anderson to James Scarola dated October 6, 2008, 09NC-OPCPOD3-64-000011; Exhibit WRJ(PEF)-3, Pages 1-10 of 233) Additionally, the NRC's decision was nearly 2 months past the expected 30 day traditional milestone letter delivery date. This alone should have raised concerns.

2. Although PEF had repeatedly identified that commitments from Joint Owners were critical to the success of the LNP and had linked their achievement to execution of the EPC contract, at the time of execution of the EPC contract, and in fact even today no joint owners were or are committed to the LNP. High level management reports repeatedly and consistently stated during the final months of 2008 that "JO work and EPC are closely tied". (Weekly reports to LINC of 9/22, 9/29, 10/6, 10/13, 10/22, 10/27, 11/3, 10/10, 10/17, 10/24, 12/01, 12/08, 12/15, 12/22, 12/29, Exhibit WRJ(PEF)-3, Pages 11-25 of 233.)

3. Receipt from the NRC of a Combined License (COL) to support the schedule was a risk given the status of design certification of the AP 1000 nuclear plant and the NRC's indication that it was unlikely that the NRC would be able to meet PEF's requested schedule.

4. Deterioration in the capital markets, broad economic weakness and legislative uncertainty were also identified by PEF as concerns.

Q. PLEASE DESCRIBE THE IMPACT OF THE COMPANY'S FAILURE TO RECEIVE THE LWA ON THE DESIRED SCHEDULE IN MORE DETAIL.

A. On July 28, 2008 PEF submitted its Combined License Application (COLA) for the LNP project to the Nuclear Regulatory Commission. In its application, PEF requested the following schedule for three of the major approvals from the technical staff review of their COLA:

- Final Environmental Impact Statement (EIS) issued June 2010
- Limited Work Authorization (LWA) issued September 2010
- Combined License (COL) issued January 2012

An October 6, 2008 letter from the NRC accepted the LNP's COLA for docketing but identified concerns related to the LNP site. The NRC's response stated:

> Although our acceptance review determined that the LNP COLA is complete and technically sufficient, the complex geotechnical characteristics of the Levy County site require additional information in order to develop a completed and integrated review schedule.

(NRC Letter Brian Anderson to James Scarola dated October 6, 2008, 09NC-OPCPOD3-64-000011, Exhibit WRJ(PEF)-3, Pages 1-10 of 233)

Concerning the requested schedule, the NRC specifically states:

> Because of the complexity of the site characteristics and the need for additional information, it is unlikely that the LNP COLA review can be completed in accordance with this requested [*by PEF*] timeline

(Explanation added.) (Ibid.)

In this letter, the NRC is clearly informing PEF that it was unlikely that the requested timeline could be met due to the complex geotechnical characteristics of the LNP site. It is not reasonable to assume that given the fact that the NRC made an effort to specifically mention the complexity of the site that it was only suggesting a brief

delay in the schedule. This is true when contrasted with the extensive effort PEF made to impress upon senior NRC staff of the need to meet its "aggressive" schedule. On December 31, 2008, PEF executed the EPC contract, which was based, in part, on the assumption that the requested LWA would be issued. Three weeks later during a January 23, 2009, conference call the NRC informed PEF that the "LWA as requested and COLA geotechnical scope require the same critical path duration" and "they do not have the resources to process an LWA." (Levy COL Schedule Jan 23rd 2009 NRC Telecon Preliminary Analysis, Jan 25, 2009 09NC-OPCPOD3-62-000003, Exhibit WRJ(PEF)-3, Pages 26-33 of 233.) As a result, PEF ultimately withdrew its request for an LWA in a May 1, 2009 letter where PEF informed the NRC that Company had decided to no longer pursue an LWA and notified the NRC that they were withdrawing their request. (PEF letter to NRC NPD-NRC-2009-061 dated May 1, 2009 09NC-OPCPOD3-64-000001. Exhibit WRJ(PEF)-3, Pages 34-36 of 233) Shortly thereafter they precipitously changed the project schedule by 20 to 36 months only three months after signing the largest contract in the Company's history and perhaps even the largest construction contract in Florida history.

On April 30, 2009, four months after contract execution, PEF issued a letter to Dr. Shawn Hughes, the consortium project director, requesting a partial suspension of work for the Levy Nuclear Project. (PEF letter from Jeff Lyash to Shawn Hughes dated April 30, 2009, 09NC-OPCPOD3-60-000089 Exhibit WRJ(PEF)-3, Pages 37-39 of 233.) This placed the company in the posture of renegotiating the EPC contract from a very weak position.

Q. HAVE ANY OTHER UTILITY COLA FILINGS FOR A NEW NUCLEAR PLANT INCLUDED A REQUEST FOR AN LWA IN THEIR COLA APPLICATION?

A. No they have not. The most somewhat similar filing is Georgia Power's request for an LWA in their Early Site Permit application for Vogtle Units 3 and 4. However, the Vogtle site is an existing nuclear plant site with well known geology and the geology at the Vogtle site is much less complex than the geology at the LNP site. It really holds little analogous value for the LNP site. PEF effectively had no precedent upon which to assume that the NRC would not take a conservative position regarding the review of the requested LWA especially in light of all the factors surrounding the October 6, 2008 letter.

Q. DID THE PEF CONTRACTOR RESPONSIBLE FOR THE GEOTECHNICAL INVESTIGATIONS AT THE LEVY SITE HAVE QUALITY ASSURANCE PROBLEMS?

A. Yes they did. PEF's subcontractor, CH2MHILL experienced numerous quality assurance breakdowns that required PEF to issue a stop work order until the deficiencies were corrected. In addition, there were other delays in completing the geotechnical work upon which the LWA and safety-related COLA determinations were jointly based. Although not known at this time, these quality assurance concerns and delays possibly could have impacted the NRC staff's willingness to accept the data to meet the very aggressive schedule for a unique and complex site. At a minimum the mere possibility of NRC concerns should have alerted PEF to proceed conservatively in its risk mitigation actions.

Q. IN YOUR OPINION WAS IT REASONABLE FOR PEF TO HAVE EXECUTED THE EPC CONTRACT WITHOUT KNOWING THAT THE NRC WOULD ISSUE THE LWA ON THE REQUESTED TIMELINE GIVEN THE NRC'S STATEMENT THAT IT WAS "UNLIKELY" THAT THE REQUESTED TIMELINE COULD BE MET?

A. In my opinion it was not reasonable. PEF signed what is likely the largest contract in the history of the State of Florida without any assurance that the LWA would be issued. Receipt of the LWA within the requested timeframe was a requirement for implementation of the contract on the schedule contained in the EPC contract. Not only did PEF not have any assurance that the LWA would be issued, the NRC specifically told them in the October 6, 2008 letter that it was unlikely that the requested timeline would be met. Under the totality of the circumstances, PEF should have assumed that an LWA review schedule different than the overall COLA review schedule would not have been adopted by the NRC. To assume otherwise and sign the EPC contract with this cloud hanging over this critical date was not reasonable.

Q. DO YOU HAVE ANY REASON TO BELIEVE THAT PEF WOULD HAVE EXECUTED THE EPC CONTRACT AS IT EXISTS TODAY IF IT HAD KNOWN THAT THE LWA WOULD NOT BE ISSUED?

A. No. This question was posed to Mr. Garry Miller during his deposition. The question and his response follow:

> Q If you had gotten the letter that you got on February 18th, if you had gotten that same letter on December 1st, would you have signed the EPC?
>
> A In the form that it was signed, no. We would have had to modify the EPC agreement for that shift in dates.

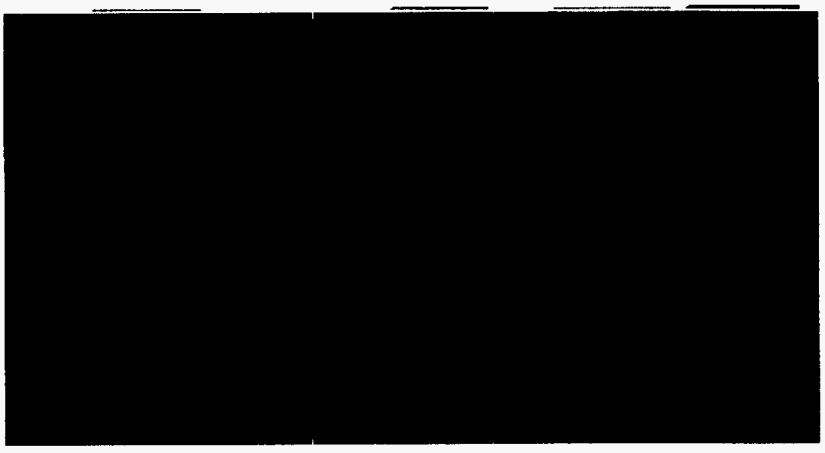
(Miller Deposition Transcript, Volume 1, page 43, lines 10-14, Exhibit WRJ(PEF)-3, Pages 40-41 of 233.)

The EPC contract would have required extensive revisions to the cost and schedule if the Company had known that the LWA would not be issued. It would have also not placed them in the weak renegotiating position in which they now find themselves.

Q. THE COMPANY APPEARS TO BLAME THE SUSPENSION OF THE PROJECT TOTALLY ON NOT RECEIVING THE LWA. DID YOU FIND EVIDENCE THAT THERE WERE OTHER REASONS FOR THE SUSPENSION?

A. Yes. PEF was clearly concerned about their capital plan for new nuclear units given the known risks.

In an April 15, 2009 letter to the Progress Energy Board of Directors, William D. Johnson, Progress Energy Chairman, President and Chief Executive Officer states:



[Emphasis Added]. (William D. Johnson letter to Progress Energy Board of Directors dated April 15, 2009 09NC-OPCPOD3-61-000049 Exhibit WRJ(PEF)-3, Pages 42-62 of 233.)

It is clear from this letter to the PGN Board and the Levy Nuclear Project Update dated April 17, 2009 (and attached to that letter) that many other factors contributed to the need to adjust the capital plan for new nuclear units.

Q. WHAT ARE THE "LANDSCAPE CHANGES" THAT ARE IDENTIFIED IN THE APRIL 17, 2009 BOARD PRESENTATION?

A. The April 17, 2009 presentation to the Progress Energy Board of Directors identifies the following "Landscape Changes" that have potential to impact the Levy project.

- **Capital Market Deterioration**
  - Share price near or below book value
  - Our sector no longer holding up
  - Debt market concerns (unsecured)
- **Federal Energy Policy Landscape**
  - Climate change
  - Nuclear/coal policies
  - Renewables
  - Environmental regulation
- **Broad economic indicators continue to show weakness**
  - Prospects for late 2009 / early 2010 recovery uncertain
  - Impact on load/energy
  - Customer ability to pay
- [redacted]
- **Florida regulatory / legislative climate**
  - Price Impact
  - Potential legislation

These landscape changes reveal a large number of concerns held by Progress Energy executive management. These concerns were evident even before the EPC contract was signed. Some of these concerns were evident as far back as September 2008 when a schedule contingency strategy was being discussed, continuing up through the 2009 EPC cost spending caps imposed in the fourth quarter of 2008.

Q. WHAT CONDITIONS ARE IDENTIFIED TO PROCEED WITH THE LEVY PROJECT?

A. The April 17 Board presentation identifies the following conditions to proceed with the Levy project:

- [redacted]
- [redacted]

Q. DOES THE APRIL 17 BOARD PRESENTATION IDENTIFY BENEFITS OF THE PROPOSED SCHEDULE DELAY FOR LNP?

A. Yes it does. The presentation identifies the benefits of delaying the LNP schedule including providing additional time for and certainty on:

- Obama Administration nuclear position
- Financial market and economic rebound
- Customer/policy maker support
- PEF rate case, first NCRC prudence hearing
- Federal policies on carbon, renewables and coal
- JO participation
- NRC COLA process
- Commodity/labor stabilization

Q. WHAT IS THE RELEVANCE OF THE ABOVE FACTORS TO THE COMPANY'S DECISION TO EXECUTE THE EPC CONTRACT?

A. These concerns are not new. They were all known well before (and on) December 31, 2008 when PEF executed the EPC contract. A more reasonable, cautions approach given the uncertainty in the LWA schedule and the list of concerns identified above would have been to continue to support development of the COLA while delaying signing of the EPC contract until the issuance of the LWA was known and the above concerns are resolved. Although the incremental impact of the signing of the EPC contract may not be known at this time, the Company believes that it is

likely that the overall cost of the project will increase. At this time the Commission does not likely have sufficient information to determine the short or long-term impacts of the premature signing of the EPC contract.

Q. PLEASE DISCUSS THE COMPANY'S FAILURE TO HAVE FIRM COMMITMENTS FROM JOINT OWNERS AT THE TIME OF THE SIGNING AND THE IMPACT OF THIS FAILURE.

A. Many project documents indicate that acquiring joint owner partners is a critical factor in the success of the project and that a strong tie existed between having joint owners committed to the project and execution of the EPC contract. The October 2008 and December 2008 Nuclear Plant Development Performance reports identify "Finalizing Joint Ownership decisions" and "Joint Ownership Discussions" as Key Issues. (Progress Energy Nuclear Plant Development Performance Report October 2008, page 5, 09NC-OPCPOD1-47-019364 and Progress Energy Nuclear Plant Development Performance Report December 2008, page 5, 09NC-OPCPOD1-47-013518, Exhibit WRJ (PEF)-3, Pages 63-109 of 233). The April 17, 2009 Board presentation discussed above identifies "Sufficient co-ownership" as a necessary condition to proceed with the project. As I discussed above, the Levy Integrated Nuclear Committee was told repeatedly that the joint owner negotiation and the signing of the EPC contact were closely tied. (See, Exhibit WRJ(PEF)-3, Pages 12-25 of 233.)

Inexplicably, despite these factors, PEF signed the EPC contract with no joint owner commitments.

Q. DID YOU FIND EVIDENCE THAT THESE RISKS WERE APPROPRIATELY ANALYZED AND THE INFORMATION WAS TRANSMITTED TO THE BOD?

A. No I did not. The December 10, 2008 Chairman's Report describes Mr. Johnson's discussion of the Levy Project with the Board. The report states that Mr. Johnson reviewed the conditions to proceed with the Project including an appropriate level of joint ownership. He also reviewed the status of co-owner negotiations. From this summary of the December 10 Board meeting, it is not evident that Mr. Johnson informed the Board of the lack of an LWA or the possible impact on the project of the failure to receive an LWA on the schedule requested by PEF. It is also not apparent that the Board was informed that no co-owners were likely to have committed to the project at the time the EPC contract would be signed. (Minutes of Regular Board of Directors Meeting, December 10, 2008, Chairman's Report 09NC09NC-OPCPOD7-89-000038, Exhibit WRJ(PEF)-3, Pages 110-111 of 233.)

Q. COULD THE COMPANY HAVE WAITED UNTIL THE NRC'S DECISION ON THE LWA WAS KNOWN AND JOINT OWNERS COMMITTED BEFORE SIGNING THE EPC CONTRACT?

A. Yes. The Company could have continued to support necessary activities such as support of the COLA and site characterization under existing agreements with the project contractors until the LWA schedule and joint owner participation was known. In addition, this would have allowed for additional clarity related to other concerns identified by the Company including the capital market deterioration, the indications of broad economic weakness and the legislative and regulatory climate.

Q. WHAT IS THE POTENTIAL IMPACT OF THE COMPANY SIGNING THE EPC CONTRACT WITH THE KNOWN OUTSTANDING RISKS?

A. The economic impact of PEF's execution of the EPC contract is unknown at this time. The Company is currently attempting to renegotiate the EPC contract with the consortium. From an overall project cost standpoint they are clearly in a weaker position to renegotiate the signed contract than if they had delayed signing until the LWA schedule and other risks were known or clarified. [redacted]. As a minimum the Company will incur additional carrying costs due to spending money under the EPC agreement earlier than would have been required if they had not signed. The answer to this question will become clearer once the EPC contract has been renegotiated.

Q. WHAT IS YOUR CONCLUSION REGARDING PEF'S EXECUTION OF THE EPC CONTRACT ON DECEMBER 31, 2008?

A. In my opinion, the Company's decision to sign the EPC contract on December 31, 2008 given the uncertainty that existed with the LWA, the lack of committed joint owners and the myriad of other uncertainties including the deteriorating economy, the chaos in the financial markets and the uncertain federal and state regulatory climate was not reasonable. I do not believe the company has met its burden of demonstrating that this action was reasonable or prudent. This decision may result in significant extra cost to the project that could have been avoided with a more cautious approach given the known risks and uncertainties at the time of signing. At the very least, the Commission does not have sufficient information to determine whether 2009 and 2010 EPC contract related costs are reasonable.

INADEQUATE FEASITILITY STUDY

Q. DID THE COMPANY CONDUCT AN ADEQUATE FEASIBILITY STUDY AS REQUIRED BY THE NUCLEAR COST RECOVERY RULES?

A. No, they did not.

Q. WHAT ARE THE RELEVANT REQUIREMENTS OF THE RULES?

A. Rule25-6.0423(5)(c)5, F.A.C., provides that:

> By May 1 of each year, along with the filings required by this paragraph, a utility shall submit for Commission review and approval a detailed analysis of the long-term feasibility of the project.

Rule 25-6.0423(8), F.A.C., provides that,

> A utility shall, contemporaneously with the filings required by paragraph (5)(c) above, file a detailed statement of project cost sufficient to support a Commission determination of prudence...

Q. PLEASE DESCRIBE YOUR CONCERNS WITH THE COMPANY'S FEASIBILITY STUDY IN MORE DETAIL.

A. Mr. Miller in his testimony and in his deposition of July 2, 2009 stated that the project is feasible. He offers general statements concerning similar projects in China, project success in schedule, less greenhouse gases, energy diversity, less vulnerability to supply disruptions and foreign government influences and other favorable attributes. He offers no detailed costs as required by the rule except for an update of the fuel and emission costs with no discussion of the effects of such updates on overall feasibility. The Company simply did not conduct a detailed analysis of the long term feasibility of the project as required by the Rule.

Q. WHAT DOES PEF CLAIM TO CONSIDER IN ITS FEASIBILITY CONSIDERATIONS?

A. In Mr. Miller's deposition, he states:

> When we consider feasible, we consider is it technically feasible? Is the AP1000 design as deployed at this site, the Levy site, are there any technical issues that suggest that will not work? We also consider regulatory feasibility or, if you will, the legal feasibility. Can you secure all of the permits, approvals, authorizations, licenses, like zoning permits and comprehensive -- comprehensive land use amendment, things like that? And in those cases and for both the technical and, as I described, this regulatory feasibility, the project still is feasible. Now we also consider cost, and so as we go forward, as we said earlier, on an ongoing basis, we will always consider the total project cost and make informed decisions of moving the project forward.

(Miller deposition 7/2/2009, Volume I, page 82, Exhibit WRJ(PEF)-3, Pages 112-114 of 233.)

Q. IS MR. MILLER CORRECT IN HIS ASSESSMENT OF THE LONG TERM FEASIBILITY OF THE PROJECT?

A. There is not enough information provided for Mr. Miller or the Commission to reach such a conclusion. He states that there are three areas of consideration by PEF: technical feasibility, regulatory feasibility and cost feasibility. There are major questions in each area.

Q. PLEASE EXPLAIN THESE MAJOR QUESTIONS.

A. I will address each area separately:

- Technical feasibility. In the EPC contractor's report of May2009, the contractor states [redacted] Letter from Shawn Hughes, Westinghouse-Shaw, to Jeff Lyash, May 11, 2009, page 6 of 52 of attachment. Exhibit WRJ(PEF)-3, Pages 115-168 of 233.)

- Regulatory Feasibility. The site problem discussed above is also a regulatory problem. Additionally, Mr. William D. Johnson, Chairman, President and CEO of Progress Energy told his Board of "Landscape Changes" affecting the project. These changes include federal energy policy landscape and Florida regulatory/legislative climate. (Letter from William D. Johnson to PEF Board, April 15, 2009, page 4 of attachment. Exhibit WRJ(PEF)-3, Pages 42-43 of 233.)
- Cost Feasibility. Mr. Miller states that they are sticking with their last year's (2008) cost estimate because they won't have an updated cost estimate that until after the EPC contract is renegotiated. The truth is that PEF does not currently have an accurate cost estimate. Among other things, to have such a plant cost estimate PEF will have to have a project schedule and a renegotiated EPC contract, and they have neither. Additionally, Mr. Johnson pointed out to his Board that in the document discussed above that there are other "Landscape Change" that are affecting cost feasibility. These include financial partner negotiations (no joint owner's as of yet) and capital market deterioration.

Q. IS MR. MILLER TELLING THE COMMISSION THE SAME THING THAT MR. JOHNSON IS TELLING HIS BOARD?

A. It appears not. Mr. Miller in his May 1 testimony states that "...the essential reasons the Company selected the LNP to meet customer needs for future generation capacity have not fundamentally changed." (Miller testimony, May 2, 2009, page 26, lines 5-7. Exhibit WRJ(PEF)-3, Pages 169-170 of 233.) A few days earlier, Mr. Johnson was

telling his Board that there are now conditions for PEF to consider in deciding whether and when to proceed with the Levy project. Among these conditions are a renegotiated EPC agreement, sufficient co-ownership, credible financing plan and continued regulatory support. He points out "landscape changes" and that a 20 or 36 month schedule change will allow "additional time for certainty" on a number of issues including Obama administration nuclear position, joint owner participation, and financial markets. A project is not feasible in just a theoretical sense; instead, Levy must be feasible to the Florida ratepayers and to PEF. Mr. Johnson pointed out to his board a number of reasons why the project may not feasible for PEF and PEF has apparently made a decision to take a 20 or 24-36 month hiatus to allow further clarity on a number of key issues.

Q. IN HIS RESPONSE TO OPC'S INTERROGATORY 47, MR. MILLER CLAIMS THAT "THE COST OF A PROJECT IS NOT PER SE DETERMINATIVE OF PROJECT FEASIBILITY." DO YOU AGREE?

A. No. While project cost is not the sole factor in determining if a project is feasible, if the cost of a project is high enough, the cost may, in fact, determine the feasibility of the project. Cost cannot be ignored in the Commission's determination of feasibility.

Q. WHAT DO YOU CONCLUDE ABOUT PEF'S ANALYSIS OF PROJECT FEASIBILITY?

A. My conclusions are as follows:

- The requirements of the NCRR have not been met. At this time, there is no accurate plant cost data and no detailed analysis as required by the Nuclear Cost Recovery Rule.

- The feasibility of the project cannot be determined without an estimate of the project cost.
- Serious questions concerning plant technical feasibility exist.
- Mr. Johnson has raised other serious feasibility questions with his Board that Mr. Miller has not discussed with this Commission.

The Commission should either: (1) enter a finding rejecting the Company's claim of feasibility, (2) spin the issue off for a feasibility determination based on a more detailed inquiry or (3) defer its determination of this issue until next year.

CRYSTAL RIVER 3 EPU PROJECT

Q. PLEASE BRIEFLY DESCRIBE THE CRYSTAL RIVER UNIT 3 EXTENDED POWER UPRATE PROJECT.

A. The Crystal River 3 extended power uprate project adds a total of 180 MWe to the existing plant. This is accomplished by increasing reactor power output and thus steam output, increasing the size and efficiency of the steam turbine and generator and increasing the accuracy of instrumentation in the plant's steam system. The project is being carried out in three phases. The Phase 1 improved the steam plant measurement accuracy of process parameters and allowed the power output to be increased by about 12 MWe. These improvements were made in 2007 and were placed in service on January 31, 2008. Phase 2 of the project will replace large portions of the steam turbines and the electric generator thus increasing efficiency and output from the current steam flow while also giving the plant the ability to utilize more steam. Using the current ability of the reactor to produce steam, phase 2 will add 28 MWe additional output because of increased efficiency. Phase 2 will be

completed in 2009. Phase 3 will increase the reactor output of steam by an additional 15.5%. This additional steam will then utilize the increased capacity installed in phase 2 to provide an additional 140 MWe for a total 1080 MWe and an overall increase of 180 MWe. (Information from Crystal River Unit 3, Extended Power Uprate, Integrated Project Plan, 09NC-OPCPOD1-4-000001, Exhibit WRJ(PEF)-3, Pages 171-197 of 233.)

Q. DID YOU IDENTIFY AREAS RELATED TO THE CR3 EPU THAT YOU BELIEVE ARE EVIDENCE OF INADEQUATE RISK MANAGEMENT?

A. Yes. The CR3 reactor is manufactured by Babcock & Wilcox (B&W). CR3 is the first B&W reactor attempted to be uprated to power levels up to 1080 MWe. The B&W design incorporates steam generators with significantly less water in the steam generators than Westinghouse or Combustion Engineering plants and this means that in some accident analyses there is less capacity for reactor cooling by boiling water out of the steam generators in an accident scenario. This does not mean that the plant is unsafe, by any means, but the safety analysis for the CR3 uprate is different for than for the other pressurized water reactor designs. This size of uprate to a B&W reactor has never before been reviewed by the NRC. The outcome is not a foregone conclusion.

Q. ARE YOU QUESTIONING THE ENGINEERING APPROACH PEF IS UTILIZING INT ITS NRC APPLICATIONS?

A. No. My point is that PEF cannot say for certain that the NRC will approve its request to the extent or in the manner requested.

Q. DOES PEF RECOGNIZE THAT THESE RISKS EXIST?

A. Yes. In their Integrated Project Plan, PEF lists five NRC licensing related items as 'Rank 9', the highest category of risk. These issues must be resolved and the solutions approved by the NRC before Phase 3 of the uprate can be implemented. If the resolutions (changes to plant equipment or operating procedures) are not approved, then the result could be a lower approved uprate level or no allowed uprate in reactor power. If that occurs, then the money being spent for phase 2 in 2009 and for phase 3 in 2010 would be largely wasted.

Q. HOW IS PEF DEALING WITH THIS RISK?

A. PEF is planning to file License Amendment Requests (LAR's) with the NRC only after phase 2 is mostly or completely finished. Review and approval of the LAR's could take a year or more. If all goes well in the review, the upgrade should proceed as scheduled.

Q. ARE THERE REASONS TO BE CONCERNED?

A. Yes. On May 19, 2008 PEF met with the NRC staff to discuss the upgrade project. At that meeting there were four reactor system issues discussed that would require filings with the NRC for review. Two filings were promised for August 2008, one for October 2008 and another for February 2009. Of these four promised dates, only the February date was achieved as PEF has decided to combine the remaining three filings with the License Amendment Request to be filed at a later date. (NRC Summary of meeting, Adams ML081480504, Exhibit WRJ(PEF)-3, Pages 198-203 of 233.) This deferral to the LAR filings possibly indicates that PEF is having difficulty in meeting NRC requirements. On the original schedule for filing the LAR's, PEF

could have had an approval or at least a good indication on likely approval before spending the money for phase 2. At this point, the money will be spent before PEF knows if their proposed solutions will be approved. The NRC noted in its meeting summary that "This project will position Crystal River Unit 3 as the first Babcock & Wilcox plant to operate at over 3000 MWth (1080 MWe)", thus recognizing the unusual nature of the expected request. PEF's response to OPC Interrogatory 71 states that as of July 8, 2009 the resolutions of these issues are not complete and will not be filed with the NRC until the fall of 2009. (PEF response to OPC INT Question 71, received 7/8/2009, Exhibit WRJ(PEF)-3, Pages 204-205 of 233.)

Q. WHAT ARE THE COSTS ASSOCIATED WITH THE EPU PROJECT?

A. Costs from a March 2009 management review are as follows:

Year	Cost (millions $ w/oAFUDC)	%of Total
2006	2.3 (actual)	0.5%
2007	38.4 (actual)	9.0%
2008	65.1 (actual)	15.2%
2009	141.4	33.1%
2010	85.5	20.0%
2011	89.2	20.9%
2012	4.6	1.1%
Total	426.6	

(Nuclear Project Management Review, March 31, 2009-09NC-OPCPOD1-7-000071, Exhibit WRJ(PEF)-3, Pages 206-233 of 233.)

Q. DID PEF FILE THE REQUIRED FEASIBILTY ANALYSIS?

A. No. PEF submitted the annual costs.

Q. HOW MUCH OF THE CR3 EPU BUDGET WILL HAVE BEEN SPENT BEFORE THE COMPANY KNOWS WHETHER OR NOT THE NRC WILL ISSUE A LICENSE FOR THE FULL UPRATE REACTOR POWER?

A. Assuming they will know the results of the NRC review by the end of 2010, approximately 80% of the money will have been spent before it is known if the NRC will grant the full requested power uprate.

Q. COULD THE COMPANY HAVE REDUCED THE RISK BY RESOLVING THE NRC LICENSING ISSUES BEFORE SPENDING THE LARGE SUMS TO MODIFY THE SECONDARY PLANT?

A. Yes. As I stated above, if they had been able to resolve the high risk issues in accordance with the schedule given to the NRC on May 19, 2008.

Q. WHAT ARE YOUR CONCLUSIONS CONCERNING THE EPU PROJECT?

A. Proceeding with phase 2 without completing the NRC review of what PEF themselves have said are high risk issues is comparable to building almost everything in a nuclear power plant except the reactor before knowing if the NRC will approve building the reactor. PEF has not carried its burden of showing that it has accurately assessed the possibility that the NRC will not approve of the full power uprate requested. A lower risk option would have been to receive reasonable assurance of NRC approval prior to spending large sums of money in the implementation of the phase 2 uprate.

V. CONCLUSIONS AND RECOMMENDATIONS

Q. WHAT ARE YOUR CONCLUSIONS CONCERNING PEF'S FILING IN THIS DOCKET?

A. 1. PEF has not demonstrated that it appropriately considered the known risks to the project when the EPC contract was signed.

2. Premature signing of the EPC contract has exposed the Company to potentially significant additional costs over the life of the LNP project.

3. The cost of the work suspension and the costs during the remainder of 2009 and 2010 are unknown.

4. Since the impact of the suspension of the EPC contract is not known, PEF has not met its burden of demonstrating that the projected costs for 2009 and 2010 are reasonable.

5. PEF's analysis of the continued feasibility of the project is inadequate.

6. The CR3 EPU project faces significant licensing risks which may render the project uneconomic if the NRC does not allow the requested plant modifications to allow the uprate to the full reactor power requested.

Q. WHAT ARE YOUR RECOMMENDATIONS CONCERNING PEF'S FILING IN THIS DOCKET?

A. I recommend the following concerning PEF's filing in this docket:

1. PEF's total revenue requirements should be reduced to reflect elimination of carrying costs related to all estimated EPC costs in 2009 and 2010. Once actual costs are known the related carrying costs can be included in the true up during the next NCRC proceeding.

2. The Commission should consider opening a separate docket to evaluate the long-term feasibility of the LNP and also concurrently order PEF to conduct a detailed feasibility analysis once the EPC contract costs are known.

3. The Commission should order PEF to determine the additional costs that have resulted from signing the EPC contract in December 2008 compared to signing the EPC contract once the actual project schedule was known.

4. The Commission should inform PEF that a prudence review of phase 2 EPU costs will be conducted if the NRC does not grant a license amendment for the full requested uprated reactor power.

Q. DOES THAT CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

CERTIFICATE OF SERVICE
Docket No. 090009-EI

I HEREBY CERTIFY that a true and correct copy of the foregoing of the REDACTED Direct Testimony of William R. Jacobs Jr., Ph.D has been furnished by U. S. Mail and *hand delivery to the following parties on this 5th day of August, 2009.

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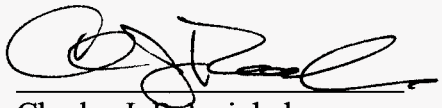

Charles J. Rehwinkel
Associate Public Counsel

William R. Jacobs, Jr.
Vice President - Generation Support Services

EDUCATION: Ph.D., Nuclear Engineering, Georgia Tech 1971
MS, Nuclear Engineering, Georgia Tech 1969
BS, Mechanical Engineering, Georgia Tech 1968

ENGINEERING REGISTRATION: Registered Professional Engineer

PROFESSIONAL MEMBERSHIP: American Nuclear Society

EXPERIENCE:

Dr. Jacobs has over thirty-five years of experience in a wide range of activities in the electric power generation industry. He has extensive experience in the construction, startup and operation of nuclear power plants. While at the Institute of Nuclear Power Operation (INPO), Dr. Jacobs assisted in development of INPO's outage management evaluation group. He has provided expert testimony related to nuclear plant operation and outages in Texas, Louisiana, South Carolina, Florida, Wisconsin, Indiana, Georgia and Arizona. He currently provides nuclear plant operational monitoring services for GDS clients. He is assisting the Florida Office of Public Counsel in monitoring the development of four new nuclear units in the State of Florida. He will provide testimony concerning the prudence of expenditures for these nuclear units. He has assisted the Georgia Public Service Commission staff in development of energy policy issues related to supply-side resources and in evaluation of applications for certification of power generation projects and assists the staff in monitoring the construction of these projects. He has also assisted in providing regulatory oversight related to an electric utility's evaluation of responses to an RFP for a supply-side resource and subsequent negotiations with short-listed bidders. He has provided technical litigation support and expert testimony support in several complex law suits involving power generation facilities. He monitors power plant operations for GDS clients and has provided testimony on power plant operations and decommissioning in several jurisdictions. Dr. Jacobs represents a GDS client on the management committee of a large coal-fired power plant currently under construction. Dr. Jacobs has provided testimony before the Georgia Public Service Commission, the Public Utility Commission of Texas, the North Carolina Utilities Commission, the South Carolina Public Service Commission, the Iowa State Utilities Board, the Louisiana Public Service Commission, the Florida Public Service Commission, the Indiana Regulatory Commission, the Wisconsin Public Service Commission, the Arizona Corporation Commission and the FERC.

A list of Dr. Jacobs' testimony is available upon request.

1986-Present GDS Associates, Inc.

As Vice-President, Dr. Jacobs directs GDS' nuclear plant monitoring activities and has assisted clients in evaluation of management and technical issues related to power plant construction, operation and design. He has evaluated and testified on combustion turbine projects in certification hearings and has assisted the Georgia

PSC in monitoring the construction of the combustion turbine projects. Dr. Jacobs has evaluated nuclear plant operations and provided testimony in the areas of nuclear plant operation, construction prudence and decommissioning in nine states. He has provided litigation support in complex law suits concerning the construction of nuclear power facilities.

1985-1986 Institute of Nuclear Power Operations (INPO)

Dr. Jacobs performed evaluations of operating nuclear power plants and nuclear power plant construction projects. He developed INPO Performance Objectives and Criteria for the INPO Outage Management Department. Dr. Jacobs performed Outage Management Evaluations at the following nuclear power plants:

- Connecticut Yankee - Connecticut Yankee Atomic Power Co.
- Callaway Unit I - Union Electric Co.
- Surry Unit I - Virginia Power Co.
- Ft. Calhoun - Omaha Public Power District
- Beaver Valley Unit 1 - Duquesne Light Co.

During these outage evaluations, he provided recommendations to senior utility management on techniques to improve outage performance and outage management effectiveness.

1979-1985 Westinghouse Electric Corporation

As site manager at Philippine Nuclear Power Plant Unit No. 1, a 655 MWe PWR located in Bataan, Philippines, Dr. Jacobs was responsible for all site activities during completion phase of the project. He had overall management responsibility for startup, site engineering, and plant completion departments. He managed workforce of approximately 50 expatriates and 1700 subcontractor personnel. Dr. Jacobs provided day-to-day direction of all site activities to ensure establishment of correct work priorities, prompt resolution of technical problems and on schedule plant completion.

Prior to being site manager, Dr. Jacobs was startup manager responsible for all startup activities including test procedure preparation, test performance and review and acceptance of test results. He established the system turnover program, resulting in a timely turnover of systems for startup testing.

As startup manager at the KRSKO Nuclear Power Plant, a 632 MWE PWR near Krsko, Yugoslavia, Dr. Jacobs' duties included development and review of startup test procedures, planning and coordination of all startup test activities, evaluation of test results and customer assistance with regulatory questions. He had overall

responsibility for all startup testing from Hot Functional Testing through full power operation.

1973 - 1979 NUS Corporation

As Startup and Operations and Maintenance Advisor to Korea Electric Company during startup and commercial operation of Ko-Ri Unit 1, a 595 MWE PWR near Pusan, South Korea, Dr. Jacobs advised KECO on all phases of startup testing and plant operations and maintenance through the first year of commercial operation. He assisted in establishment of administrative procedures for plant operation.
As Shift Test Director at Crystal River Unit 3, an 825 MWE PWR, Dr. Jacobs directed and performed many systems and integrated plant tests during startup of Crystal River Unit 3. He acted as data analysis engineer and shift test director during core loading, low power physics testing and power escalation program.

As Startup engineer at Kewaunee Nuclear Power Plant and Beaver Valley, Unit 1, Dr. Jacobs developed and performed preoperational tests and surveillance test procedures.

1971 - 1973 Southern Nuclear Engineering, Inc.

Dr. Jacobs performed engineering studies including analysis of the emergency core cooling system for an early PWR, analysis of pressure drop through a redesigned reactor core support structure and developed a computer model to determine tritium build up throughout the operating life of a large PWR.

SIGNIFICANT CONSULTING ASSIGNMENTS:

Georgia Public Service Commission – Assisted the Georgia Public Service Commission Staff and provided testimony related to the evaluation of Georgia Power Company's request for certification to construct two AP1000 nuclear power plants at the Plant Vogtle site.

South Carolina Office of Regulatory Staff -- Assisted the South Carolina Office of Regulatory Staff in evaluation of South Carolina Electric and Gas' request for certification of two AP1000 nuclear power plants at the V.C. Summer site.

Florida Office of Public Counsel – Assists the Florida Office of Public Counsel in monitoring the development of four new nuclear power plants in Florida including providing testimony on the prudence of expenditures.

East Texas Electric Cooperative – Represents ETEC on the management committee of the Plum Point Unit 1 a 650 Mw coal-fired plant under construction in Osceola, Arkansas and represents ETEC on the management committee of the Harrison County Power Project, a 525 Mw combined cycle power plant located near Marshall, Texas.

Arizona Corporation Commission – Evaluated operation of the Palo Verde Nuclear Generating Station during the year 2005. Included evaluation of 11 outages and providing written and oral testimony before the Arizona Corporation Commission.

Citizens Utility Board of Wisconsin – Evaluated Spring 2005 outage at the Kewaunee Nuclear Power Plant and provided direct and surrebuttal testimony before the Wisconsin Public Service Commission.

Georgia Public Service Commission - Assisted the Georgia PSC staff in evaluation of Integrated Resource Plans presented by two investor owned utilities. Review included analysis of purchase power agreements, analysis of supply-side resource mix and review of a proposed green power program.

State of Hawaii, Department of Business, Economic Development and Tourism – Assisted the State of Hawaii in development and analysis of a Renewable Portfolio Standard to increase the amount of renewable energy resources developed to meet growing electricity demand. Presented the results of this work in testimony before the State of Hawaii, House of Representatives.

Georgia Public Service Commission - Assisted the Georgia PSC staff in providing oversight to the bid evaluation process concerning an electric utility's evaluation of responses to a Request for Proposals for supply-side resources. Projects evaluated include simple cycle combustion turbine projects, combined cycle combustion turbine projects and co-generation projects.

Millstone 3 Nuclear Plant Non-operating Owners – Evaluated the lengthy outage at Millstone 3 and provided analysis of outage schedule and cost on behalf of the non-operating owners of Millstone 3. Direct testimony provided an analysis of additional post-outage O&M costs that would result due to the outage. Rebuttal testimony dealt with analysis of the outage schedule.

H.C. Price Company – Evaluated project management of the Healy Clean Coal Project on behalf of the General Contractor, H.C. Price Company. The Healy Clean Coal Project is a 50 megawatt coal burning power plant funded in part by the DOE to demonstrate advanced clean coal technologies. This project involved analysis of the project schedule and evaluation of the impact of the owner's project management performance on costs incurred by our client.

Steel Dynamics, Inc. – Evaluated a lengthy outage at the D.C. Cook nuclear plant and presented testimony to the Indiana Utility Regulatory Commission in a fuel factor adjustment case Docket No. 38702-FAC40-S1.

Florida Office of Public Counsel - Evaluated lengthy outage at Crystal River Unit 3 Nuclear Plant. Submitted expert testimony to the Florida Public Service Commission in Docket No. 970261-EI.

William R. Jacobs, Jr.
Vice President - Generation Support Services

United States Trade and Development Agency - Assisted the government of the Republic of Mauritius in development of a Request for Proposal for a 30 MW power plant to be built on a Build, Own, Operate (BOO) basis and assisted in evaluation of Bids.

Louisiana Public Service Commission Staff - Evaluated management and operation of the River Bend Nuclear Plant. Submitted expert testimony before the LPSC in Docket No. U-19904.

U.S. Department of Justice - Provided expert testimony concerning the in-service date of the Harris Nuclear Plant on behalf of the Department of Justice U.S. District Court.

City of Houston - Conducted evaluation of a lengthy NRC required shutdown of the South Texas Project Nuclear Generating Station.

Georgia Public Service Commission Staff - Evaluated and provided testimony on Georgia Power Company's application for certification of the Intercession City Combustion Turbine Project - Docket No. 4895-U.

Seminole Electric Cooperative, Inc. - Evaluated and provided testimony on nuclear decommissioning and fossil plant dismantlement costs - FERC Docket Nos. ER93-465-000, et al.

Georgia Public Service Commission Staff - Evaluated and prepared testimony on application for certification of the Robins Combustion Turbine Project by Georgia Power Company - Docket No. 4311-U.

North Carolina Electric Membership Corporation - Conducted a detailed evaluation of Duke Power Company's plans and cost estimate for replacement of the Catawba Unit 1 Steam Generators.

Georgia Public Service Commission Staff - Evaluated and prepared testimony on application for certification of the McIntosh Combustion Turbine Project by Georgia Power Company and Savannah Electric Power Company - Docket No. 4133-U and 4136-U.

New Jersey Rate Counsel - Review of Public Service Electric & Gas Company nuclear and fossil capital additions in PSE&G general rate case.

Corn Belt Electric Cooperative/Central Iowa Power Electric Cooperative - Directs an operational monitoring program of the Duane Arnold Energy Center (565 Mwe BWR) on behalf of the non-operating owners.

Cities of Calvert and Kosse - Evaluated and submitted testimony of outages of the River Bend Nuclear Station - PUCT Docket No. 10894.

Iowa Office of Consumer Advocate - Evaluated and submitted testimony on the estimated decommissioning costs for the Cooper Nuclear Station - IUB Docket No. RPU-92-2.

William R. Jacobs, Jr.
Vice President - Generation Support Services

Georgia Public Service Commission/Hicks, Maloof & Campbell - Prepared testimony related to Vogtle and Hatch plant decommissioning costs in 1991 Georgia Power rate case - Docket No. 4007-U.

City of El Paso - Testified before the Public Utility Commission of Texas regarding Palo Verde Unit 3 construction prudence - Docket No. 9945.

City of Houston - Testified before Texas Public Utility Commission regarding South Texas Project nuclear plant outages - Docket No. 9850.

NUCOR Steel Company - Evaluated and submitted testimony on outages of Carolina Power and Light nuclear power facilities - SCPSC Docket No. 90-4-E.

Georgia Public Service Commission/Hicks, Maloof & Campbell - Assisted Georgia Public Service Commission staff and attorneys in many aspects of Georgia Power Company's 1989 rate case including nuclear operation and maintenance costs, nuclear performance incentive plan for Georgia and provided expert testimony on construction prudence of Vogtle Unit 2 and decommissioning costs of Vogtle and Hatch nuclear units - Docket No. 3840-U.

Swidler & Berlin/Niagara Mohawk - Provided technical litigation support to Swidler & Berlin in law suit concerning construction mismanagement of the Nine Mile 2 Nuclear Plant.

Long Island Lighting Company/Shea & Gould - Assisted in preparation of expert testimony on nuclear plant construction.

North Carolina Electric Membership Corporation - Prepared testimony concerning prudence of construction of Carolina Power & Light Company's Shearon Harris Station - NCUC Docket No. E-2, Sub537.

City of Austin, Texas - Prepared estimates of the final cost and schedule of the South Texas Project in support of litigation.

Tex-La Electric Cooperative/Brazos Electric Cooperative - Participated in performance of a construction and operational monitoring program for minority owners of Comanche Peak Nuclear Station.

Tex-La Electric Cooperative/Brazos Electric Cooperative/Texas Municipal Power Authority (Attorneys - Burchette & Associates, Spiegel & McDiarmid, and Fulbright & Jaworski) - Assisted GDS personnel as consulting experts and litigation managers in all aspects of the lawsuit brought by Texas Utilities against the minority owners of Comanche Peak Nuclear Station.

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James P. McGaughy, Jr.
Executive Consultant

EDUCATION: M.S., Mechanical Engineering, Stanford University, 1969
U.S. Navy Nuclear Power Training Program, 1964-65
B.S., Electrical Engineering, MIT, 1964

ENGINEERING REGISTRATION: Registered Professional Engineer

Mr. McGaughy and five others founded GDS Associates, Inc. in 1986. Mr. McGaughy retired from GDS as an officer, board member and stockholder in May 2006. Since that time he has worked for GDS on various generation related consulting assignments on a part time basis.

EXPERIENCE:

While Mr. McGaughy was full time at GDS, he directed the power generation services function at GDS Associates, Inc. He has more than 40 years experience in the power generation field in the areas of licensing, design, construction, start-up, operation, and maintenance of nuclear and fossil-fired power plants. Mr. McGaughy has worked with top utility management to solve problems on a wide range of power generation issues. He has successfully managed extremely large and complex generation projects, both nuclear and fossil, which required the rigorous maintenance of project schedules and quality. He has performed studies concerning cogeneration projects involving unit dispatch and FERC operating and efficiency standards. Mr. McGaughy has provided testimony before the Texas Public Utility Commission, Public Utility Commission of Ohio, South Carolina Public Service Commission, Georgia Public Service Commission, Hawaii Public Utility Commission, New Jersey Board of Regulatory Commissioners, Michigan Public Utility Commission, Wisconsin Public Service Commission and FERC. He has performed work concerning over 30 nuclear units and 24 fossil-fired steam units as well as numerous combustion turbine and combined cycle units.

Specific Experience Includes:

2006-Present **GDS Associates, Inc.**

As an Executive Consultant, Mr. McGaughy has worked on various power plant related projects.

1986-2006 **GDS Associates, Inc.**

As Vice President and Secretary, Mr. McGaughy served as head of the Generation Services Department of GDS. GDS has provided construction and operations monitoring program at five nuclear units and six coal-fired units for minority owners. GDS has provided expert witness and litigation support in lawsuits involving six nuclear units. Mr. McGaughy also has been responsible for prudence, construction monitoring and litigation support efforts at numerous other nuclear units and for development of a nuclear performance standard program for the Georgia Public Service Commission. He has testified on combustion turbine construction projects in certification proceedings and has testified on dispatch, reliability, avoided cost and other issues concerning cogeneration projects.

James P. McGaughy, Jr.
Executive Consultant

1984-1986 **Southern Engineering Company**

As Director of Generation Services, Mr. McGaughy conducted construction and operations monitoring for clients at power plants throughout the United States. In addition, Mr. McGaughy prepared testimony for various rate cases on generation matters at FERC and state commissions. He provided assistance to clients in all generation matters including contract administration and litigation support.

1980-1984 **Mississippi Power and Light Company**

Mr. McGaughy served as Vice President, Nuclear (1983-84) and Assistant Vice President, Nuclear Production (1980-82). He was responsible for all aspects of construction and operation of a multi-billion dollar power generation facility. In this capacity he hired and trained the nuclear power plant staff of over 500 people, including 29 licensed operators and numerous experienced utility managers. Mr. McGaughy also established a unique design engineering group which grew to over 125 people and had overall responsibility for interface with the Nuclear Regulatory Commission and all contractors on the project. During this tenure, cost and schedule performance was better than at any other similar plant (G.E. Boiling Water Reactor, BWR-6 design).

1973-1980 **Mississippi Power and Light Company**

Mr. McGaughy served as Director of Power Production (1978-80). In this capacity he was responsible for all power production related activities including construction, operation, engineering, maintenance, licensing, nuclear safety, staffing, and training. He prepared and administered annual personnel and operating budgets for 600 people and more than $50 million, and an annual capital budget of $280 million. He also established a formal screening program for hiring craft personnel, established a formal preventive maintenance program, and reorganized his department based on job performance. He served as project manager for 2-unit, 1,600 MW coal project.

Mississippi Power and Light Company

Mr. McGaughy served as Nuclear Project Manager (1976-78) and Assistant Project Manager (1973-75). He was responsible for forming and managing an organization to control the prime contractor on a $4 billion construction project. He began the formation of plant staff organization. He was also responsible for relations with the Nuclear Regulatory Commission and the prime contractor (Bechtel). The construction permit was awarded in record time.

1971-1973 **Middle South Services, Inc.**

Mr. McGaughy served as a nuclear engineer on the holding company staff responsible for economic and engineering studies including the feasibility evaluation for Grand Gulf Nuclear Station. He performed nuclear fuel and uranium buying functions. He also performed generation-mix studies.

James P. McGaughy, Jr.
Executive Consultant

1969 - 1971 **Arkansas Power and Light Company**

Mr. McGaughy was responsible for nuclear fuel procurement and performed the licensing work including the preparation of the Safety Analysis Report for Arkansas Nuclear One, Unit 2.

1964-1968 **U.S. Navy**

Served as an engineering officer on nuclear propulsion power plants aboard navy submarines.

SIGNIFICANT CONSULTING ASSIGNMENTS:

Pacific Gas & Electric Company – Performed technical analyses of two different cogeneration plants to determine if projects had met FERC and state efficiency and operating standards.

Niagara Mohawk Power Corporation/Swidler & Berlin – Assisting in FERC proceeding to set new rates for disqualified former QF.

Niagara Mohawk Power Corporation/Swidler & Berlin – Prepared extensive technical analysis for filing in federal court and at FERC concerning efficiency and operating standards of cogeneration facility in support of motion to revoke QF certification

Attorney General, State of Michigan – Prepared analysis and testimony concerning power plant availability and system dispatch relating to the Midland cogeneration project in Consumers Power fuel plan case.

Attorney General, State of Michigan – Prepared analysis and testimony concerning purchased power costs relating to the Midland cogeneration project in Consumers Power fuel reconciliation case.

Attorney General, State of Michigan – Prepared analysis and testimony concerning avoided costs, PURPA rates, reserve margins, plant availability and dispatchability in MCV cogeneration facility settlement case.
U-10127.

Attorney General, State of Michigan – Analysis and testimony concerning Consumers' application of requirements of order in Case No. U-10127 relating to the Midland cogeneration project.

North Carolina Electric Membership Cooperative – Performed due diligence review of management for a 3-site, 1,200 MW, peaking project. Reviewed management site selection, fuel, equipment selection, environmental, contracting and other aspects.

VECO Alaska, Inc. – Served as construction project management expert witness for EPC contractor in lawsuit concerning construction overruns in a turnkey cogeneration project in Alaska. Served as witness in successful mediation.

James P. McGaughy, Jr.
Executive Consultant

H.C. Price Construction Company – Provided detailed analysis and mediation presentations concerning construction project management in case involving construction contractor and owner (State of Alaska) of a coal-fired plant in Alaska.

Rusk County, Texas Rural Electric Cooperative/Richard Balough – Testified before the Texas Public Utility Commission concerning coal-fired plant station electric service in territorial dispute with Texas Utilities.

Sam Rayburn G&T – Ongoing operational monitoring program concerning client's interest in Nelson 6 Coal Station operated by Gulf States Utilities.

Kamo Electric Cooperative – Operational monitoring program for client's minority interest in GRDA Unit 2 Coal Fired Station.

Northeast Texas Electric Cooperative – Ongoing construction monitoring and operational monitoring program concerning NTEC's interest in Pirkey Coal Station operated by Southwestern Electric Power Company and Dolet Hills Station operated by Central Louisiana Electric Company.

Sawnee and Coweta/Fayette Electric Membership Cooperatives – Served as Owner's project monitor on Sewell Creek Combustion Turbine Plant, Doyle Combustion Turbine Project, Chattahoochee Combined Cycle Project and Talbot County Combustion Turbine Project.

Northeast Texas Electric Cooperative – Served as Owner's representative on Project Management Committee for design, construction and operation of 500Mw combined cycle plant.

U.S. Department of Justice – Served as expert witness in two tax cases involving investment tax credits for nuclear fuel.

Steel Dynamics, Inc. – Analysis of imprudence and replacement power costs at D.C. Cook Plant.

Corn Belt Power Cooperative – Performed review of available options for board of directors with recommendations for future plan of action.

East Texas Electric Cooperative – Assisted cooperative in negotiating steam and electric service contract with industrial customer.

Georgia Public Service Commission Staff – Testified before the Georgia Public Service Commission recommending that a nuclear performance standard be implemented in the State of Georgia. The Commission implemented the recommended standard.

City of El Paso – Testified before the Public Utility Commission of Texas regarding Palo Verde operations and maintenance expenses.

James P. McGaughy, Jr.
Executive Consultant

City of El Paso – Testified before the Public Utility Commission of Texas regarding valuation of Palo Verde power plant and other merger issues.

City of Homestead, Florida/Spiegel & McDiarmid – Assisted City in lawsuit regarding DeLaval Diesel-Generators. Prepared expert testimony and gave major deposition on subject before favorable settlement.

El Paso Community College/Law offices of Jim Boyle – Prepared testimony concerning level of Palo Verde Nuclear Station operation and maintenance costs requested by El Paso Electric. Analysis was performed on bases of comparative studies and on specific analysis of cost filed by El Paso Electric.

Old Dominion Electric Cooperative – Prepared testimony filed at FERC concerning prudent levels of coal inventory for inclusion Virginia Power working capital.

Long Island Lighting Company/Shea & Gould – Prepared expert testimony on nuclear plant construction.

Ohio Public Service Commission – Prepared testimony related to decommissioning costs of Toledo Edison's Davis-Besse Nuclear Station.

Georgia Public Service Commission/Hicks, Maloof & Campbell – Assisted Georgia Public Service Commission staff and attorneys in many aspects of Georgia Power Company's 1989 rate case including analysis of service company charges, construction prudence of Vogtle Unit 2, decommissioning costs of Vogtle and Hatch nuclear units, prepared expert testimony on operation and maintenance costs for Hatch and Vogtle nuclear units, prepared expert testimony on Performance Incentive Plan for Georgia Power nuclear units.

Georgia Public Service Commission/Hicks, Maloof & Campbell – Prepared testimony related to Vogtle and Hatch plant operations and maintenance costs in 1991 Georgia Power rate case.

Georgia Public Service Commission Staff – Prepared testimony concerning certification of McIntosh Units, Warner Robins Units, Intercession City Unit and Florida Power Corporation Power Purchase (three separate dockets)

City of Houston – Testified before Texas Public Utility Commission regarding South Texas Project operation and maintenance expenses.

Sam Rayburn G&T – Prepared testimony before Texas Public Utility Commission concerning certificate of convenience and necessity for co-op purchase of 38 mw interest in an existing coal-fired plant.

Aetna Insurance Company/Dickson, Carlson & Campillo – Assisted attorneys in analysis of Southern California Edison claims of property damage and replacement power costs. Prepared written analyses used in achieving favorable settlements for clients.

James P. McGaughy, Jr.
Executive Consultant

East Texas Electric Cooperative – Performed economic and technical feasibility analyses on hydro and thermal generation alternatives.

Allegheny Electric Power Cooperative – Assisted co-op in review of various financial and technical issues of Susquehanna Nuclear Station.

Saluda River Electric Cooperative – Assisted co-op in review of technical issues including decommissioning and minimum net dependable capability ratings for the co-op's minority interest in Catawba Nuclear Station operated by Duke Power Company.

City of Midland, Michigan – Assisted city in tax assessment case concerning Midland Nuclear Plant with Consumer's Power Company.

City of Wallingford, Connecticut – Reviewed decommissioning costs of Millstone Nuclear Units 1, 2, and 3 in CP&L rate case at FERC.

Nucor Steel/Ritts, Brickfield & Kaufman – Prepared testimony concerning prudence of construction of Carolina Power & Light Company's Sheron Harris Station.

City of Austin, Texas – Review of cost and schedule of South Texas Nuclear Plant.

Sam Rayburn Municipal Power Authority – Performed operational monitoring program relative to the client's minority interest in Nelson 6 Coal Station operated by Gulf States Utilities.

Tex-La Electric Cooperative/Brazos Electric Cooperative – Conducted construction and operational monitoring program for minority owners of Comanche Peak Nuclear Station.

Tex-La Electric Cooperative/Brazos Electric Cooperative/Texas Municipal Power Authority (Attorneys - Burchette & Associates, Spiegel & McDiarmid, and Fulbright & Jaworski) – Assisted attorneys as consulting experts and litigation managers in all aspects of the lawsuit brought by Texas Utilities against the minority owners of Comanche Peak Nuclear Station.

New Jersey Rate Counsel – Review of Public Service Electric & Gas Company nuclear and fossil O&M costs and capital additions in PSE&G general rate case.

E. Cary Cook
Senior Project Manager

EDUCATION: Georgia Southern University; BBA, Management, 1966-1970
Woodrow Wilson College of Law; JD, 1972-1975
Certified Public Accountant, 1987

PROFESSIONAL MEMBERSHIPS: American Institute of Certified Public Accountants
Georgia Society of Certified Public Accountants
Society of Depreciation Professionals

EXPERIENCE:

Mr. Cook has extensive experience in the electric utility industry. This experience includes preparation of cost of service studies and revenue requirements analysis; development of depreciation studies, audits of electric & gas affiliate transactions and wholesale formula rates, preparation of merger studies, cost of capital analysis and negotiation of wholesale and retail revenue requirements and rates.

Mr. Cook was employed by Ebasco Business Consulting Company from March 1978 through June 1982. While at Ebasco Mr. Cook served as Project Manager in the utility rates division where he provided cost of service, revenue requirements and FERC reporting services to investor-owned and municipal electric utilities. In June 1982 Mr. Cook joined Southern Engineering Company as a Project Manager where he continued to provide cost of service and revenue requirements assistance to rural electric cooperative and municipal electric utilities. In February 1986 Mr. Cook joined GDS Associates, Inc. where he has served as Senior Project Manager. He has provided cost of service, revenue requirements, depreciation analysis, mergers and acquisitions studies, FERC and state reporting and other ratemaking services to electric cooperative, municipal, industrial and governmental organizations. Mr. Cook has also provided electric rate negotiation services on behalf of electric utilities.

Mr. Cook has prepared testimony and has testified before several regulatory agencies. Mr. Cook has filed testimony regarding the preparation of utilities' cost of service, o & m expenses, depreciation, taxes other than income taxes, a & g expenses, other revenues, income taxes and rate base on behalf of various electric utility clients. Mr. Cook has testified before the Georgia Public Service Commission, the Texas Public Utilities Commission, the Alaska Regulatory Commission and the Federal Energy Regulatory Commission. Mr. Cook served as a symposium member in 2007, addressing the implementation of Fuel Adjustment Clauses (FAC).

Specific Project Experience Includes:

Provided 1998 cost of service and rate assistance to Georgia Public Service Commission regarding Georgia Power Company retail rate filing.

Provided 1999 litigation support and analysis on behalf of Niagara Mohawk Power in counterclaim regarding Baesha Engineering Associates.

Provided 1999 cost of service and rate analysis assistance to Southeastern Federal Power Customers regarding SEPA/TVA proposed rate increases. Reviewed and provided recommendations regarding reasonableness of costs.

Prepared 2000 testimony regarding depreciation issue in Reliant HL&P filing on behalf of City of Houston and others. Provided 2001 testimony on behalf of City of Houston at retail rate proceeding.

E. Cary Cook
Senior Project Manager

Prepared 2000, 2001 and 2002 direct testimony regarding adjustments to Chugach cost of service and wholesale rates. Testified before the Regulatory Commission of Alaska regarding issues addressed in testimony. Dockets were ultimately settled resulting in reduced rates to client, Matanuska Electric Association.

Prepared 2000 testimony regarding recommended revenue requirements and wholesale cost of service of Pennsylvania Electric Company on behalf of Allegheny Electric Cooperative, Inc.

Reviewed 2005 electric utility affiliate transactions regulations and audited utility affiliate regulations of Sempra Energy Utilities, San Diego Gas & Electric Company and Southern California Gas Company. Prepared findings and recommendations to California Public Utility Commission resulting in revisions to affiliate transactions regulations.

Prepared 2005 direct and answering testimony on behalf of Golden Spread Electric Cooperative, and others regarding cost of service issues in FERC Docket No. EL05-19-002. Testified on behalf of client before the Federal Energy Regulatory Commission.

Prepared 2006 direct and closing testimony on behalf of Arkansas Electric Cooperative Corporation in FERC Docket No. ER05-719-000 and proposed adjustments to wholesale transmission rates. Docket was ultimately settled.

Review and analysis of Southwestern Public Service Company 2006 projected test year wholesale cost of service on behalf of Golden Spread Electric Cooperative to determine rate issues.

Prepare depreciation and cash working capital testimony on behalf of the City of Houston in Center Point Energy, PUC Docket No. 32093. Docket resulted in settlement of proposed retail and wholesale rates.

Analyzed 2003 through 2007 Southern Company annual OATT transmission formula rate determinations and recommended adjustments to wholesale transmission rates resulting in reduced wholesale rates.

Analyzed 2003 through 2007 Entergy Services, Inc. OATT annual transmission formula rate determinations and recommended adjustments to wholesale rate filing, resulting in reduced, settled wholesale rates.

Analyzed 2003 through 2007 Entergy Arkansas annual transmission formula rate determinations and recommended adjustments to wholesale rate filing, resulting in reduced, settled wholesale rates.

October 6, 2008

Mr. James Scarola, Senior Vice President
and Chief Nuclear Officer
Progress Energy, Inc.
P.O. Box 1551
Raleigh, NC 27602

SUBJECT: ACCEPTANCE REVIEW FOR THE LEVY COUNTY NUCLEAR POWER PLANT UNITS 1 AND 2 COMBINED LICENSE APPLICATION

Dear Mr. Scarola:

By letter dated July 28, 2008, Progress Energy Florida, Inc. (PEF) submitted its application to the U.S. Nuclear Regulatory Commission (NRC) for a combined license (COL) for two AP1000 advanced passive pressurized water reactors in accordance with the requirement contained in 10 CFR Part 52, "Licenses, Certifications and Approvals for Nuclear Power Plants." This letter informs you that the NRC staff has completed its acceptance review and has determined that your application is acceptable for docketing. These reactors will be identified as Levy Nuclear Power Plant (LNP) Units 1 and 2 and are to be located at a site in Levy County, Florida. The docket numbers established for LNP Units 1 and 2 are 52-029 and 52-030, respectively.

The LNP combined license application (COLA) incorporates by reference Appendix D to 10 CFR Part 52 and the AP1000 Design Control Document submitted by Westinghouse as Revision 16. As allowed by 10 CFR 52.55(c), at your own risk, you have referenced a design certification application that has been docketed but not granted. Therefore, your COL review schedule is dependent on the review schedule for the design certification. In addition, as a subsequent combined license applicant, your COL application review schedule is also dependent on the review schedule for the Tennessee Valley Authority's Bellefonte Units 3 and 4 COLA (the reference COLA for the AP1000 design center). Because it utilizes the standard content contained in the reference COL application (R-COLA), it is incumbent upon PEF to remain cognizant of the resolution of the standard technical issues that will be addressed during the NRC review of the Bellefonte R-COL application. If you determine that it is necessary to resolve a standard issue differently for the LNP Units 1 and 2 COLA, you must notify the NRC immediately so that we may determine the review impact of this standard issue being considered as site specific.

As discussed with your staff, the date that we intend to publish a schedule for review can not be determined until additional information is provided by you. Although our acceptance review determined that the LNP COLA is complete and technically sufficient, the complex geotechnical characteristics of the Levy County site require additional information in order to develop a complete and integrated review schedule. Enclosure 1 contains this Request for Additional Information (RAI).

As necessary, other RAIs will be issued separately. Because of the scheduling uncertainty in the areas of geotechnical science and structural engineering, the NRC staff does not intend to commence a review of these areas until all associated RAIs are sufficiently answered. For all other sections of the LNP COLA, the NRC staff intends to commence reviews based on the availability of resources.

Your application submittal letter requested that the NRC consider the following milestones when preparing our complete and integrated review schedule: Final Environmental Impact Statement issuance in June 2010, Limited Work Authorization issuance in September 2010, and COL issuance in January 2012. Because of the complexity of the site characteristics and the need for additional information, it is unlikely that the LNP COLA review can be completed in accordance with this requested timeline. The NRC staff expects to interact with you as the safety and environmental review schedules are developed.

Enclosure 2 is a notice of acceptance for docketing. This notice is being forwarded to the Office of the Federal Register. A separate notice will be published in accordance with the provisions of 10 CFR 2.104, regarding the hearing.

Should you have any questions, please contact me at (301) 415-9967 or send an e-mail to Brian.Anderson@nrc.gov.

Sincerely,

/RA/

Brian Anderson, Lead Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-029
52-030

Enclosures:
1. Request for Additional Information
2. Federal Register Notice

As necessary, other RAIs will be issued separately. Because of the scheduling uncertainty in the areas of geotechnical science and structural engineering, the NRC staff does not intend to commence a review of these areas until all associated RAIs are sufficiently answered. For all other sections of the LNP COLA, the NRC staff intends to commence reviews based on the availability of resources.

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Should you have any questions, please contact me at (301) 415-9967 or send an e-mail to Brian.Anderson@nrc.gov.

Sincerely,

/RA/

Brian Anderson, Lead Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-029
52-030

Enclosures:
1. Request for Additional Information
2. Federal Register Notice

ADAMS Accession No.: ML082760352

OFFICE	DNRL/NWE1:LA	DNRL/NWE1:PM	OGC	DNRL/NWE1:BC
NAME	KGoldstein R. Butler for	BAnderson	SBrock	SCoffin
DATE	10/02/08	10/02/08	10/06/08	10/02/08

OFFICIAL RECORD COPY

Request for Additional Information
Levy County Units 1 and 2
Progress Energy Florida, Inc.
Docket No. 52-029 and 52-030

QUESTIONS for Geosciences and Geotechnical Engineering Branch 1 (RGS1)
SRP Section: 02.05.01 - Basic Geologic and Seismic Information
Application Section: SRP 2.5.1

02.05.01-1
Please summarize the information being used as the technical basis for the dissolution rates presented, including documentation of the basis for indicating that dolomitized limestone dissolves less readily than non-dolomitized limestone, to enable an adequate assessment of karst development as a potential future geologic hazard. Include any references necessary.

02.05.01-2
Reference is made to a "subset" of the regional fracture system which apparently exhibits the same orientation as fractures in the regional fracture system (Attachment 2, pg. 4 of supplement, Karst Discussion).

Please qualify whether these "subset" fractures are simply smaller-scale features (i.e., having a shorter length along strike but the same orientation) than the regional fractures, and discuss whether or not they could exercise local control on dissolution. Please also discuss the pertinence of the observed fracture spacings in the outcrops relative to the regional fracture sets.

02.05.01-3
The supplement states that grouting will inhibit the development of karst by preventing the flow of groundwater through the grouted zones beneath the nuclear island (Attachment 2, pg. 15 of supplement, Permeation Grouting Discussion).

Please address the potential issue of how altering the groundwater flow regime by grouting could affect dissolution below and around the periphery of the grouted zone to assure that this aspect has been considered.

02.05.01-4
The supplement refers to a "shelf" within the Avon Park Formation defined by lowered shear wave velocity measurements (Attachment 2, pg. 15 of supplement, Permeation Grouting Discussion).

Please qualify this "shelf" in the Avon Park Formation to clearly indicate lithology involved relative to composition, thickness, lateral distribution, and material properties.

02.05.01-5
The supplement lists assumptions and postulations used to calculate lateral dimensions of borehole features (Attachment 2, pg. 7 of supplement, Karst Discussion - Excess Grout Takes), and states that 9.9 ft is the maximum lateral extent of dissolution cavities at depth. Considering a fracture spacing of 19 ft., if dissolution developed along two parallel fractures with this spacing, then the resulting cavity could easily exceed 9.9 ft. if the two cavities coalesced at depth.

Please discuss the uncertainty involved in the estimate of a 9.9 ft. maximum lateral extent for dissolution cavities and the potential for coalescing dissolution cavities at depth.

02.05.01-6
The supplement cites Dr. A. Randazzo (Attachment 2, pg. 7 of supplement, Karst Discussion - Excess Grout Takes) as supporting the statement that the horizontal dimension of dissolution features associated with vertical fractures is a fraction of the vertical dimension, but does not summarize the information documenting the statement that lateral extent of dissolution features developed along fractures is about 20% of the vertical dimension.

Please summarize the evidence, with appropriate references, for the statement that lateral extent of dissolution features related to fractures is only about 20% of their vertical dimension.

02.05.01-7
The supplement refers to estimates as "conservative" for definition of a 10-ft. maximum lateral extent for dissolution voids at any depth (Attachment 2, pg. 8 of supplement, Karst Discussion - Excess Grout Takes), even though subsurface investigations do not appear to clearly document this lateral limit due to borehole spacing and depth.

Please summarize the evidence leading to the conclusion that dissolution cavities will be no greater than 10 ft. in lateral extent, since that dimension is used as the basis for design of the RCC. Please discuss whether or not it is anticipated that voids of that size presently exist within the proposed grout zone and explain the approach that will be followed if large voids are discovered based on grout takes.

QUESTIONS for Geosciences and Geotechnical Engineering Branch 1 (RGS1)
SRP Section: 02.05.02 - Vibratory Ground Motion
Application Section: SRP 2.5.2

02.05.02-1
Please describe your plans for ensuring the shear wave velocity post-grouting was appropriately represented in the site response analyses you performed in your previous calculation of the GMRS.

02.05.02-2
Please provide additional justification why geophysical tools, such as resistivity, microgravity, and seismic tomography, were not used to characterize the extent of subsurface voids at depth. Please also describe your plans for any post-grouting geophysical testing to assure that dissolution cavities are filled and demonstrate post-grouting uniformity of the site.

QUESTIONS for Geosciences and Geotechnical Engineering Branch 1 (RGS1)
SRP Section: 02.05.04 - Stability of Subsurface Materials and Foundations
Application Section: SRP 2.5.4

02.05.04-1
Please provide a sufficiently detailed discussion to justify that the borings adequately characterize karst at depth at the site, and that the existing borehole spacing is sufficient to characterize the lateral dimension of dissolution cavities and assess their correlation and interpreted lack of connectivity between boreholes.

02.05.04-2
The Avon Park Formation may contain dissolution voids, soil-filled dissolution voids, and highly variable strengths of subsurface rock materials based on Rock Quality Designation (RQD), shear wave velocity measurements, and compressive strength test results from intact samples.

a. Please provide a more detailed explanation of how the supporting rock profile was modeled in the Finite Element (FEM) analysis. Include a detailed explanation of how the material properties for subsurface materials supporting the RCC were determined for application in the FEM. Indicate how variability in the rock mass, voids and low density soil-filled voids were modeled in the FEM.

b. Please describe how the results from the FEM were compared with shear strength in the Avon Park Formation in the static and dynamic bearing capacity calculations. Please provide sample calculations.

c. Please describe how rock mass properties were determined for use in the U.S Army Corps of Engineers (USACE) bearing capacity equations you referenced, and provide a sample calculation for bearing capacity using the USACE method for static and dynamic loads.

d. Please indicate how the limestone supporting the RCC meets the uniformity requirements for subgrade reaction.

02.05.04-3
The supplement states that, because incremental shear stresses at El -150 ft were only 2 psi, characterization of subsurface conditions below this depth were considered to be adequate and, consequently, settlement magnitudes were deemed to be appropriate.

a. Given the small number of borings, please discuss the basis for the conclusion that larger voids which may collapse and consequently affect settlement do not exist below El -150 ft.

b. Please provide a sketch of the rock profile assumption, including rock mass elastic properties used in the elastic settlement analyses. Provide a sample calculation using the Boussinesq stress distribution down to 2B. Please indicate how rock mass elastic properties for the settlement calculation were determined and how karst features were incorporated into the rock mass property determinations for settlement analysis.

QUESTIONS for Structural Engineering Branch 1 (AP1000/EPR Projects) (SEB1)
SRP Section: 03.08.05 - Foundations
Application Section: 3.8.5.1

03.08.05-1
Under, SRP Section 3.8.5, "Foundations," the staff reviews the adequacy of foundations of all Seismic Category I structures. A foundation is a structural element that connects the superstructure and the supporting medium, such as soils or rocks. The purpose of the foundation is to hold the superstructure in place and to transmit all loads of the superstructure to the underlaying soils or rocks.

Levy FSAR Section 3.8.5.1, "Description of the Foundations," references FSAR Section 2.5.4, "Stability of Subsurface Materials and Foundations," for a description of the foundation depth of overburden and depth of embedment. FSAR Section 2.5.4 describes that, below the NI basemat, a 35-foot thick RCC bridging mat will be used to transmit the NI loads under static and dynamic conditions to the karst foundation. However, details regarding how this bridging mat will transform the NI loads to the karst foundation are not provided.

Staff requests the applicant to:

(a) Describe the methods used to transmit the static and dynamic loads of the NI through the bridging mat to the karst foundation, and justify the use of the RCC bridging mat between the NI basemat and the karst foundation.
(b) Provide requirements of material, installation, and compaction for the RCC bridging mat, and the analysis and design methods for the bridging mat.

COL Progress Energy - Levy County Mailing List (Revised 09/29/2008)
cc:

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Public Citizens Critical Mass Energy
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NOAA Fisheries Southeast Regional Office
9721 Executive Center Drive North
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Mr. James Scarola
Sr. Vice President and
Chief Nuclear Officer
Progress Energy, Inc.
P.O. Box 1551
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COL Progress Energy - Levy County Mailing List

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COL Progress Energy - Levy County Mailing List

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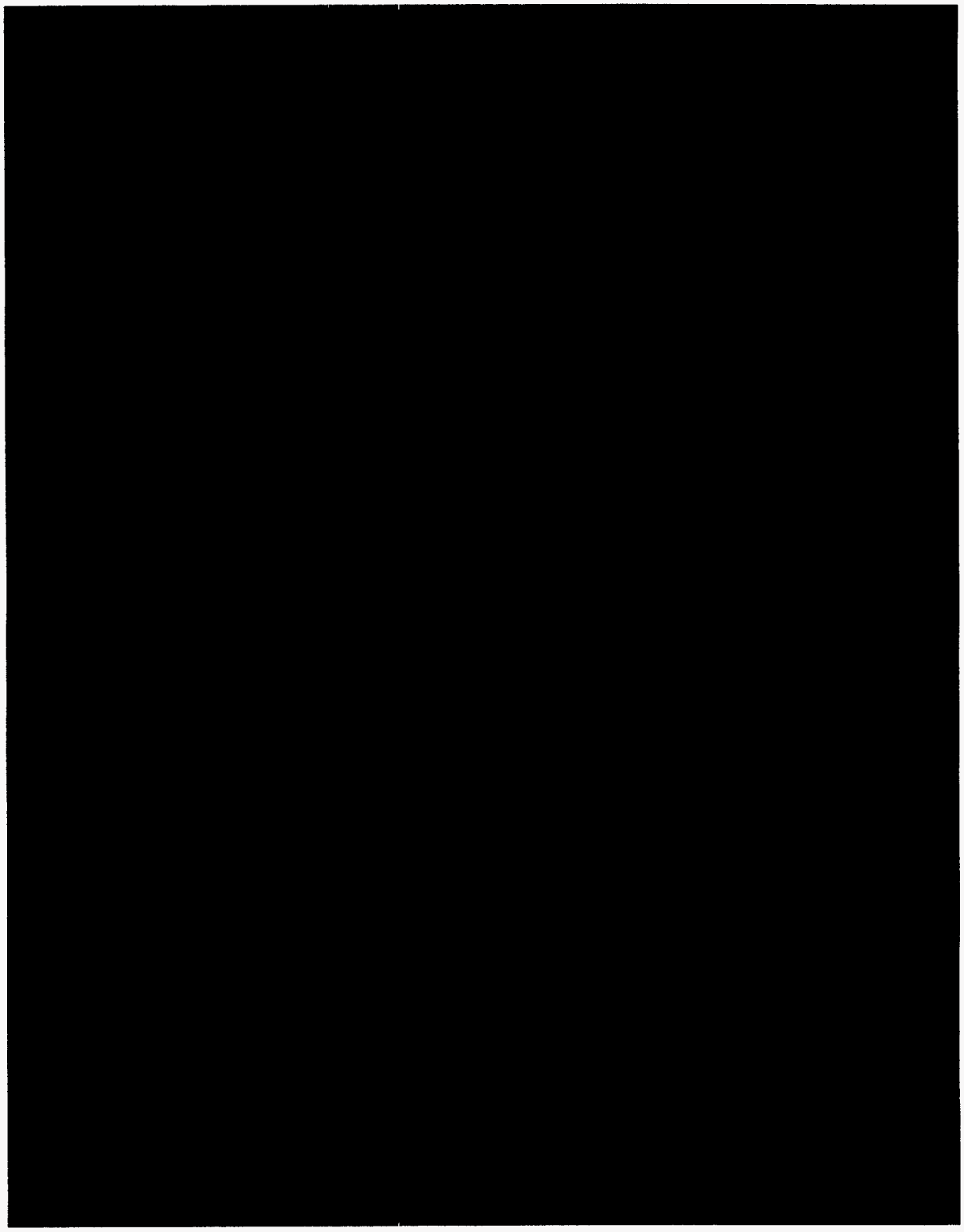
REDACTED



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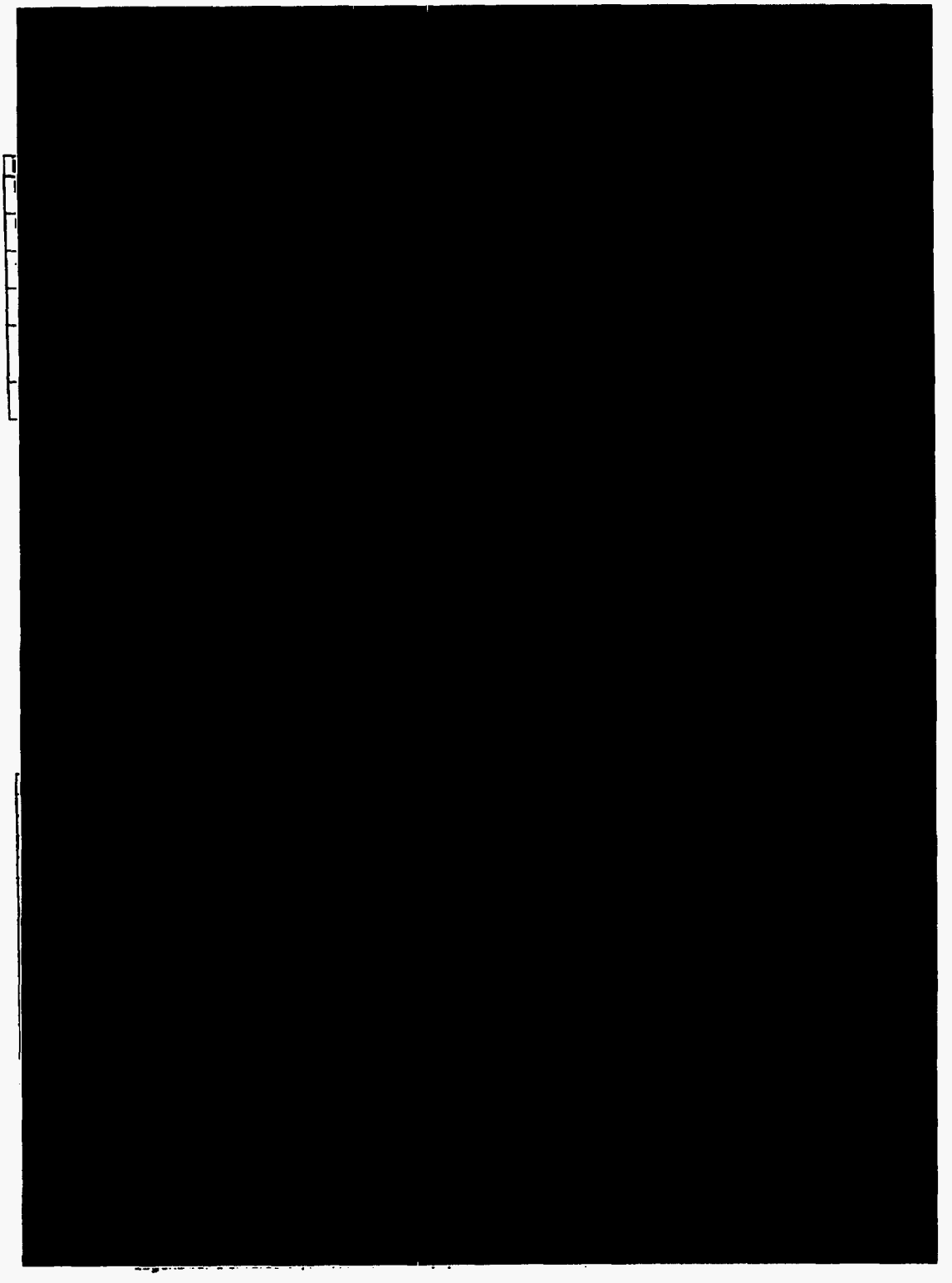

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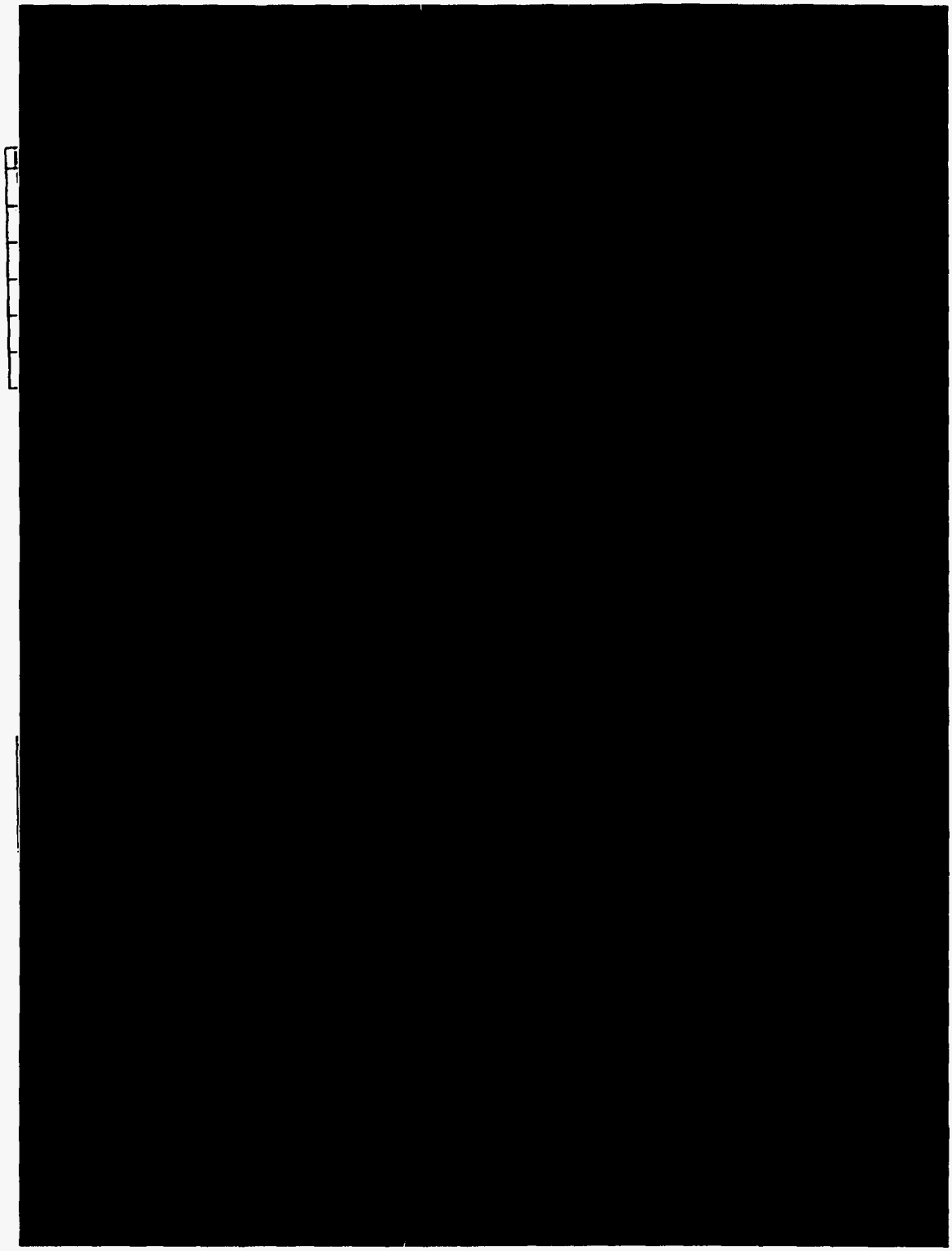

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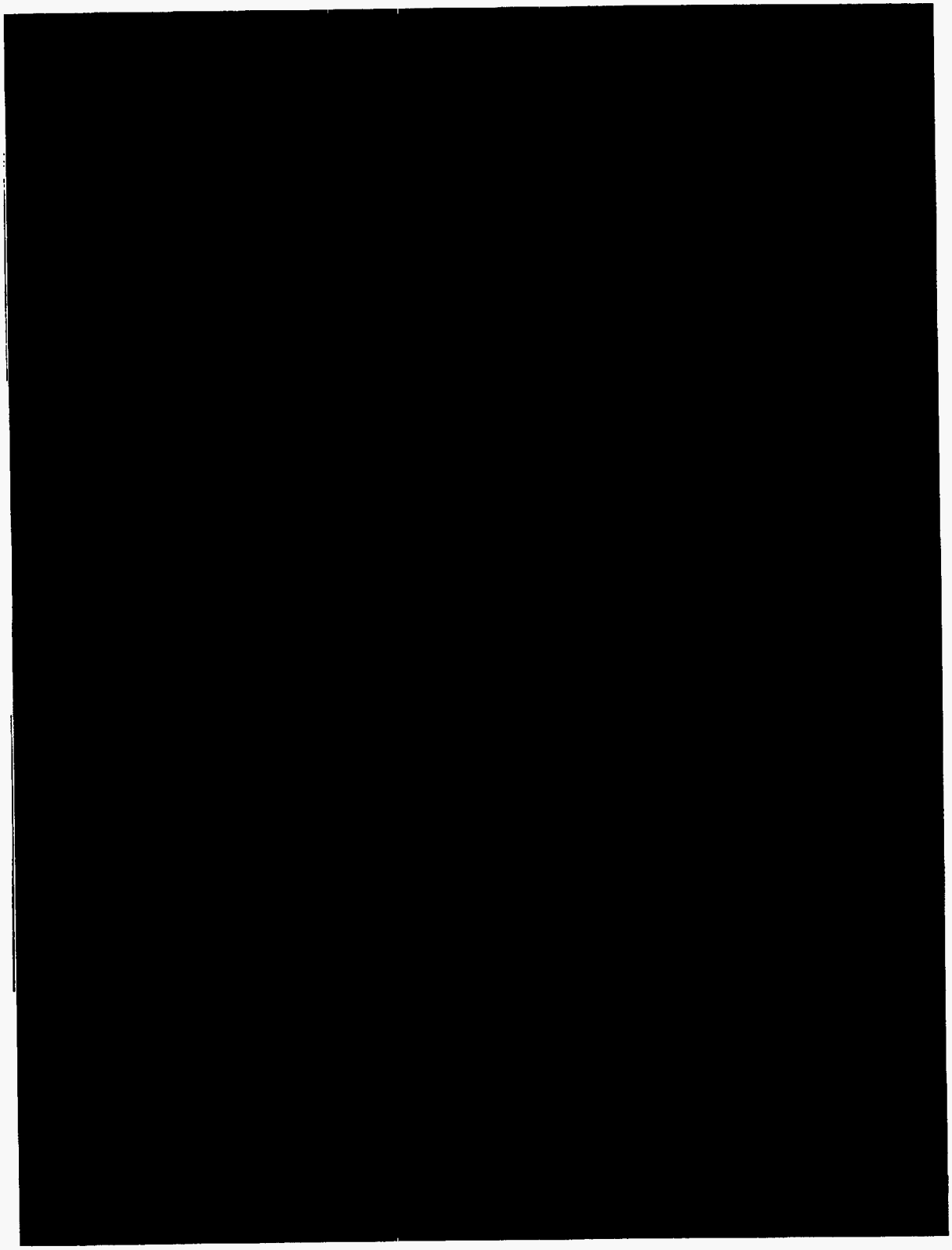

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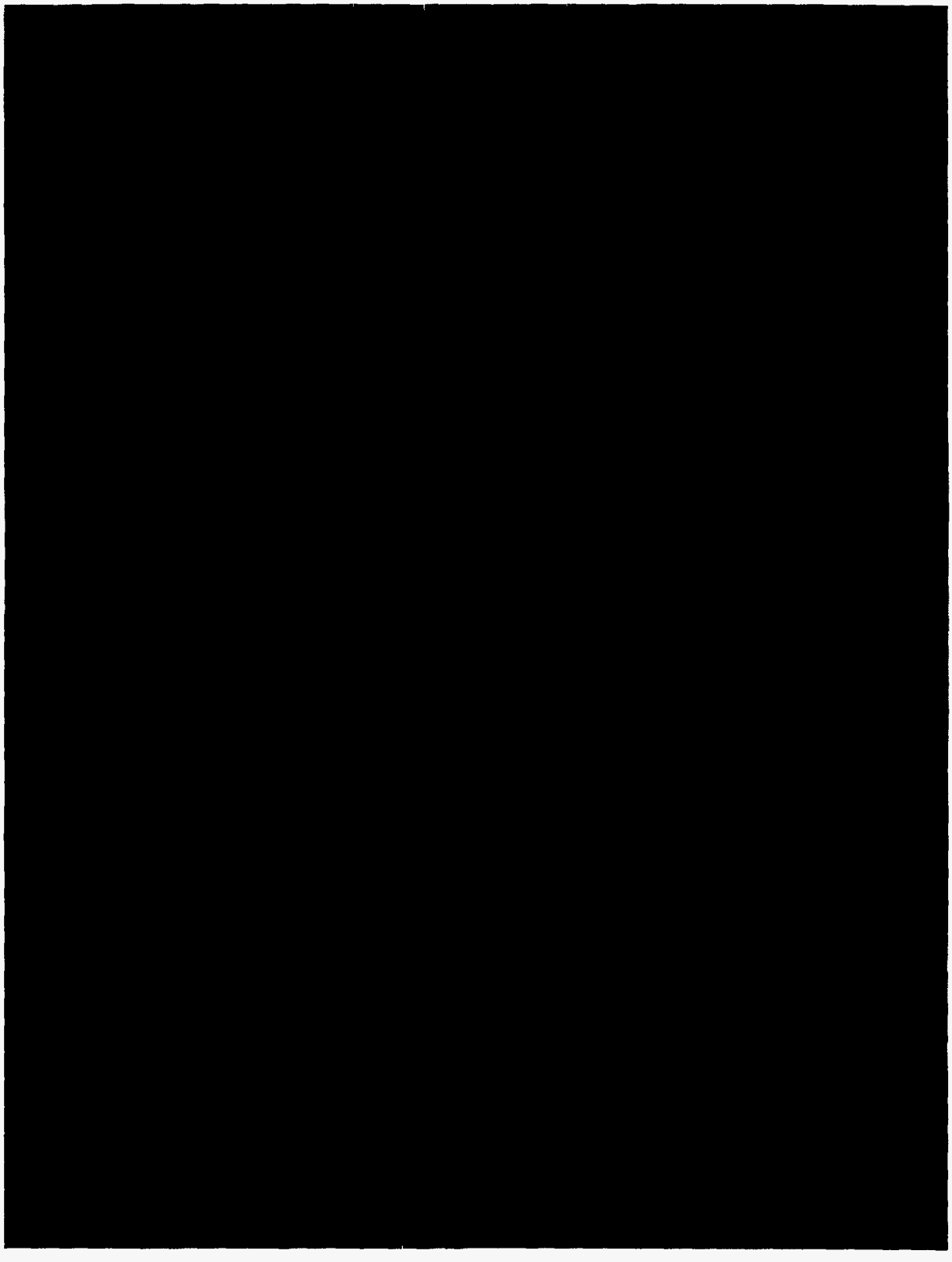

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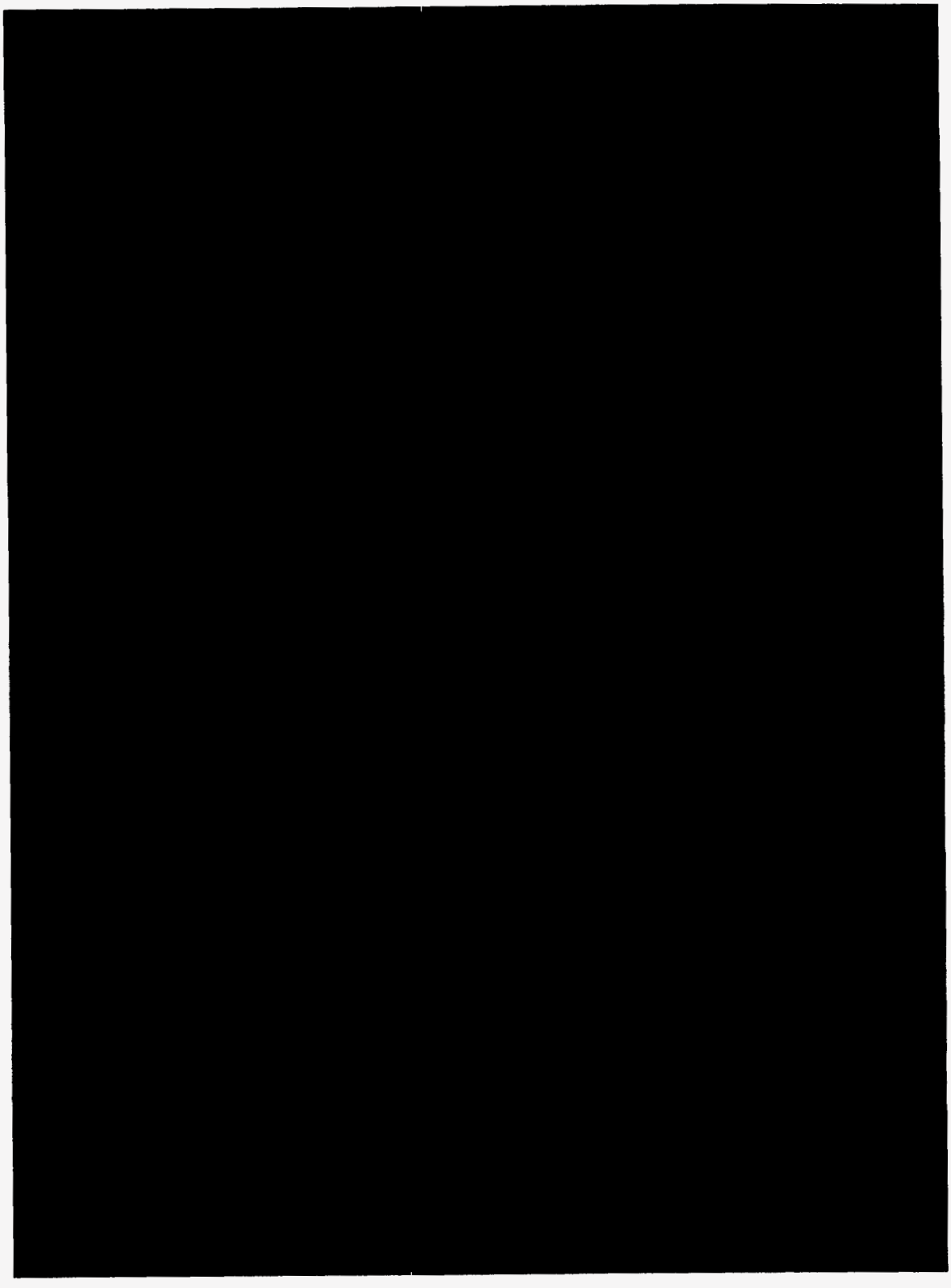

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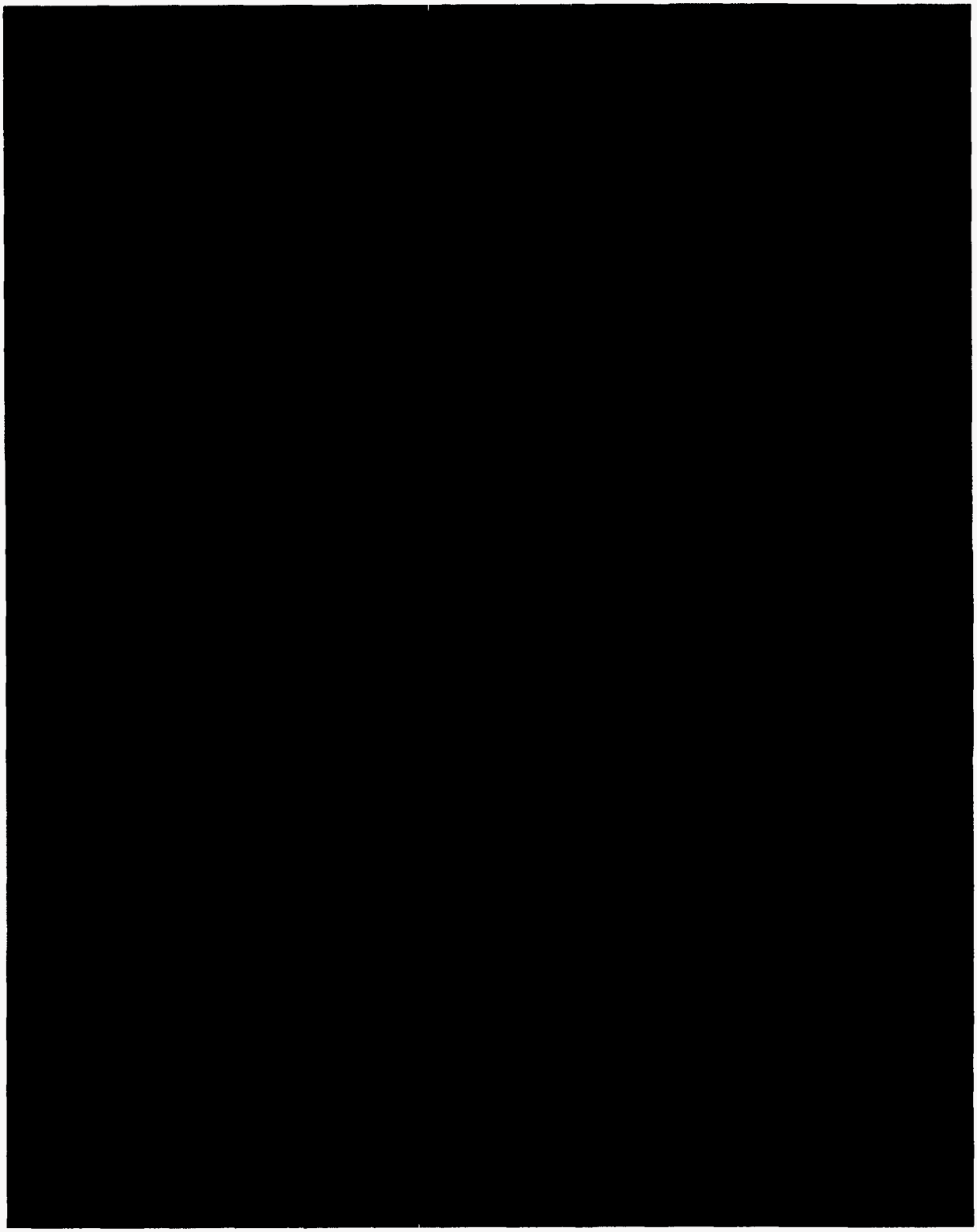

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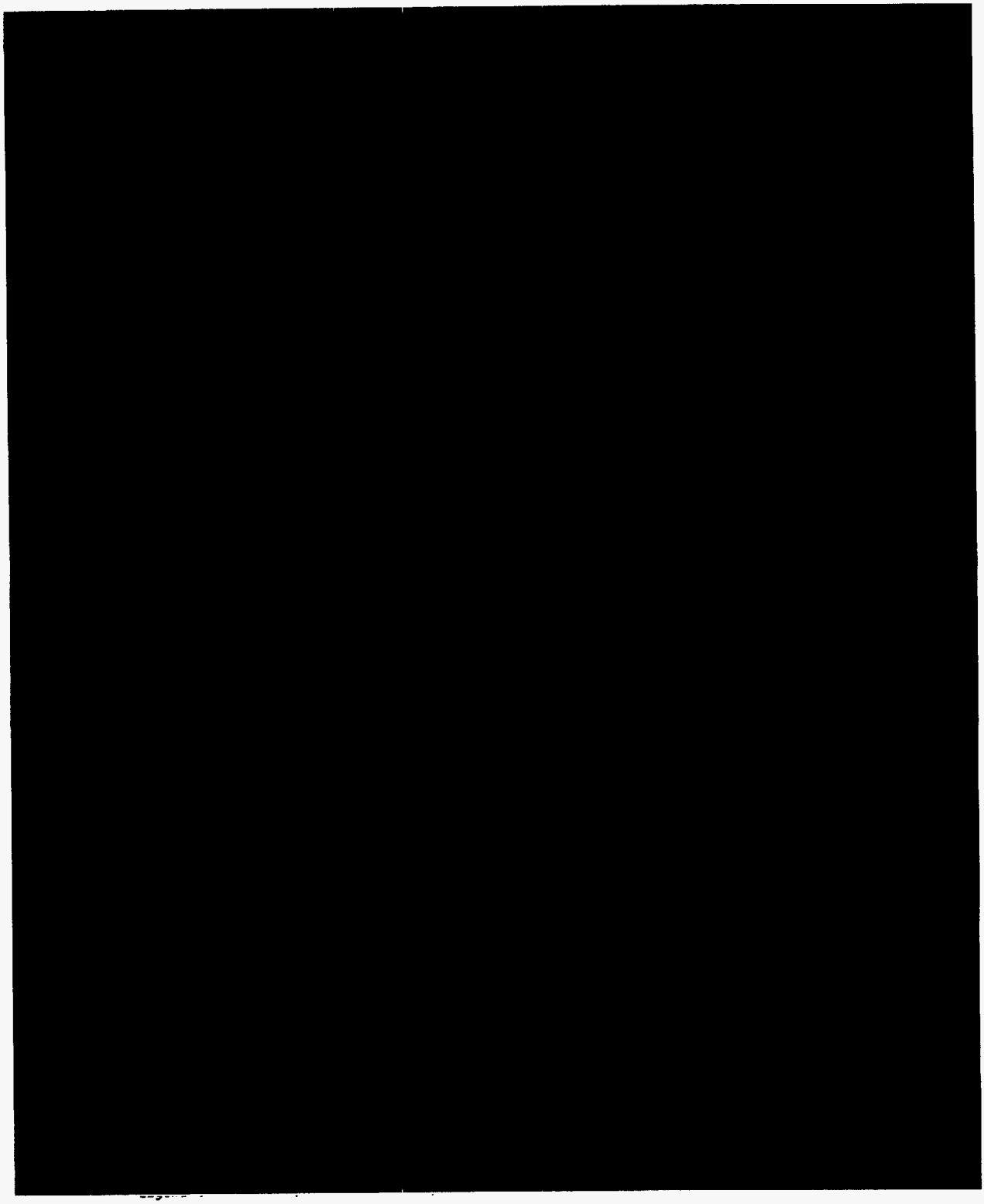

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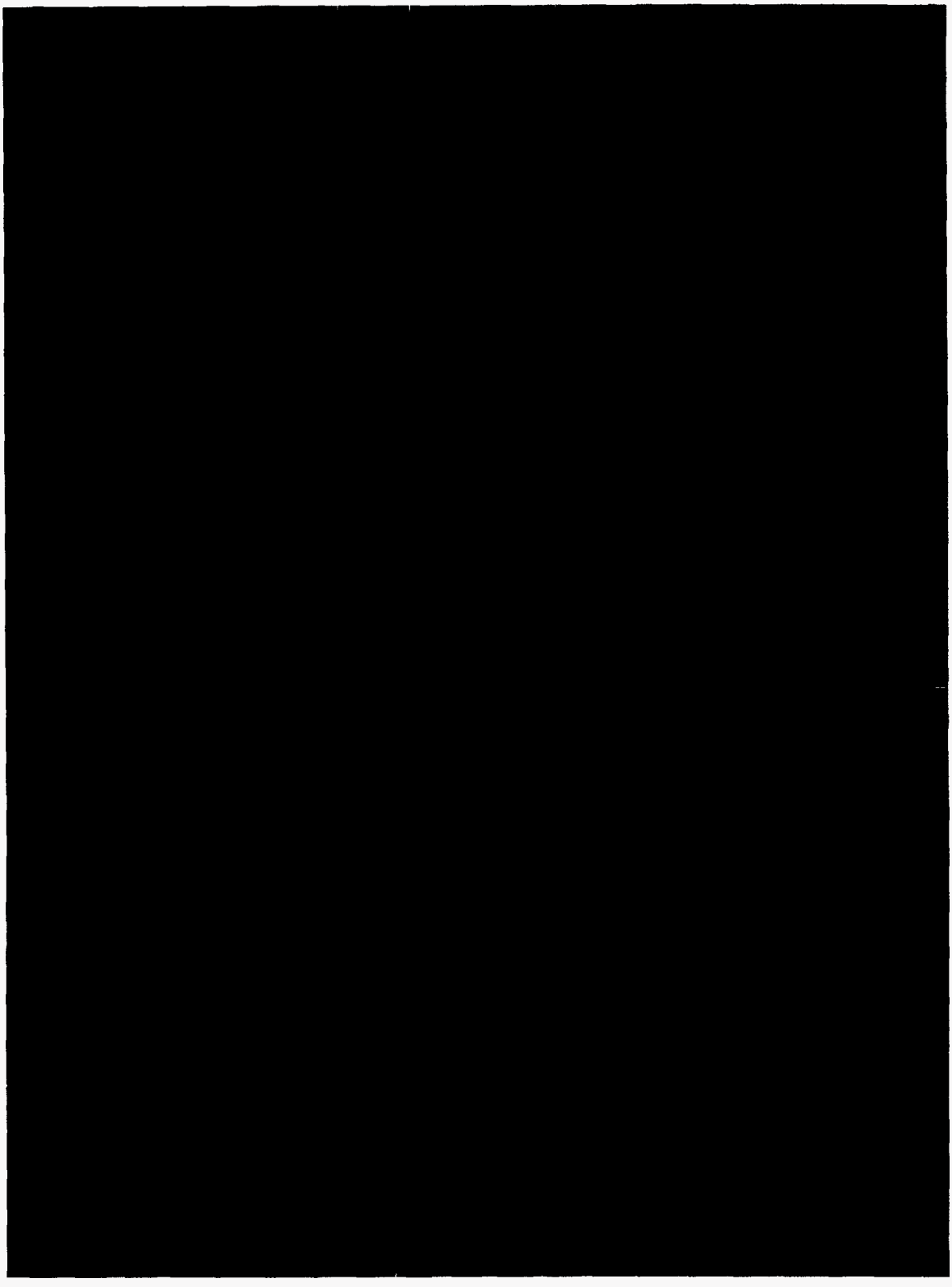

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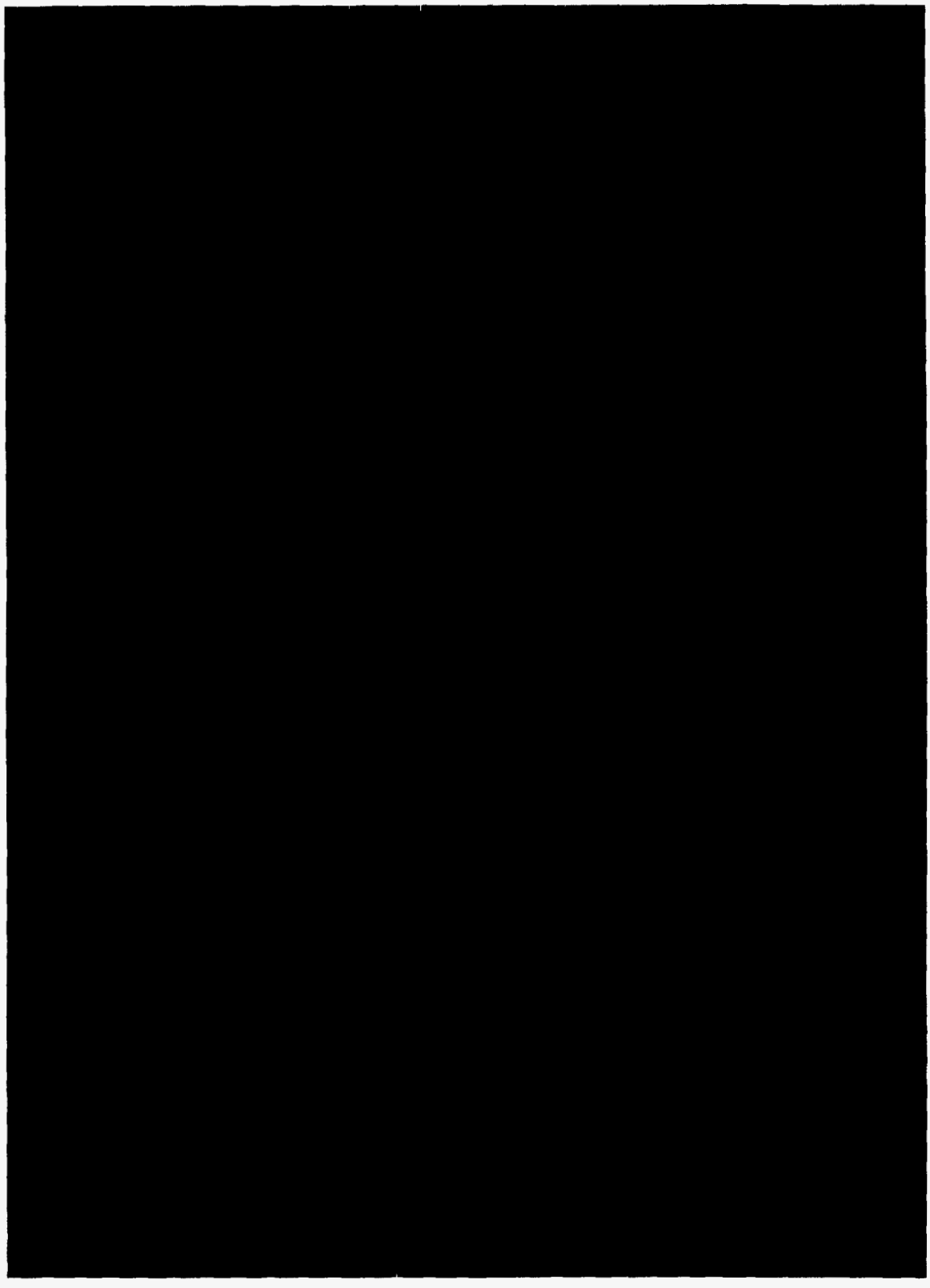

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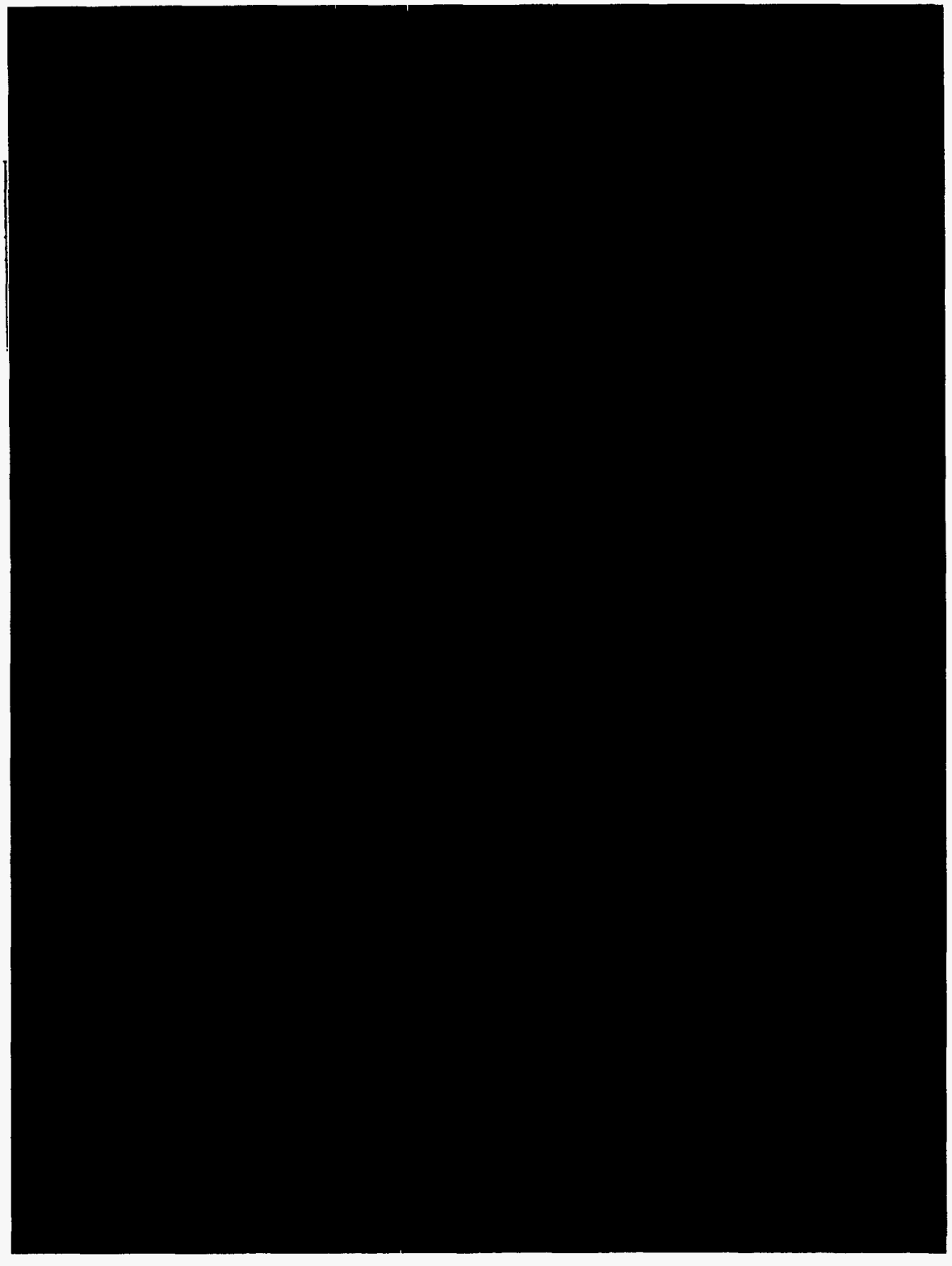

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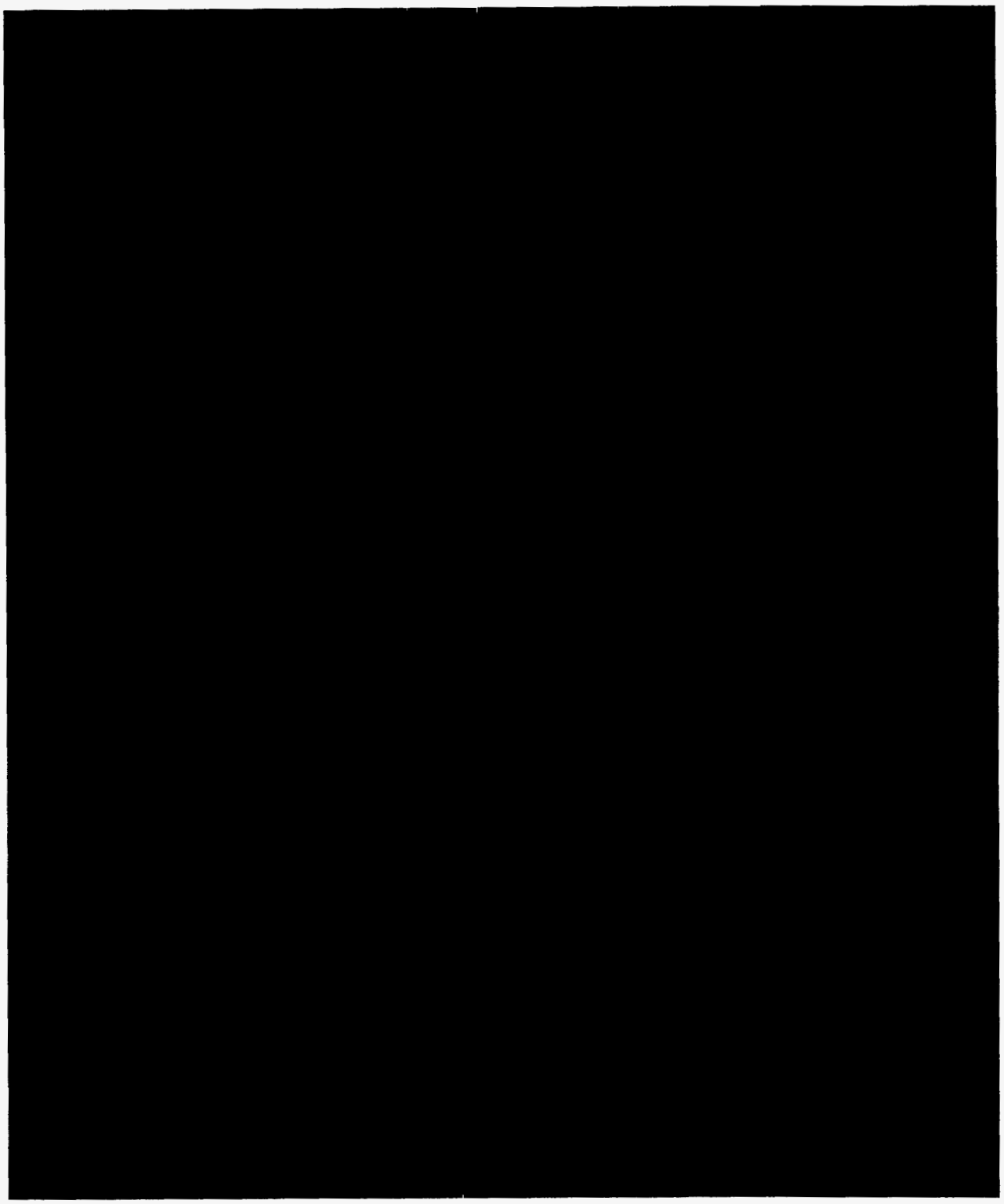

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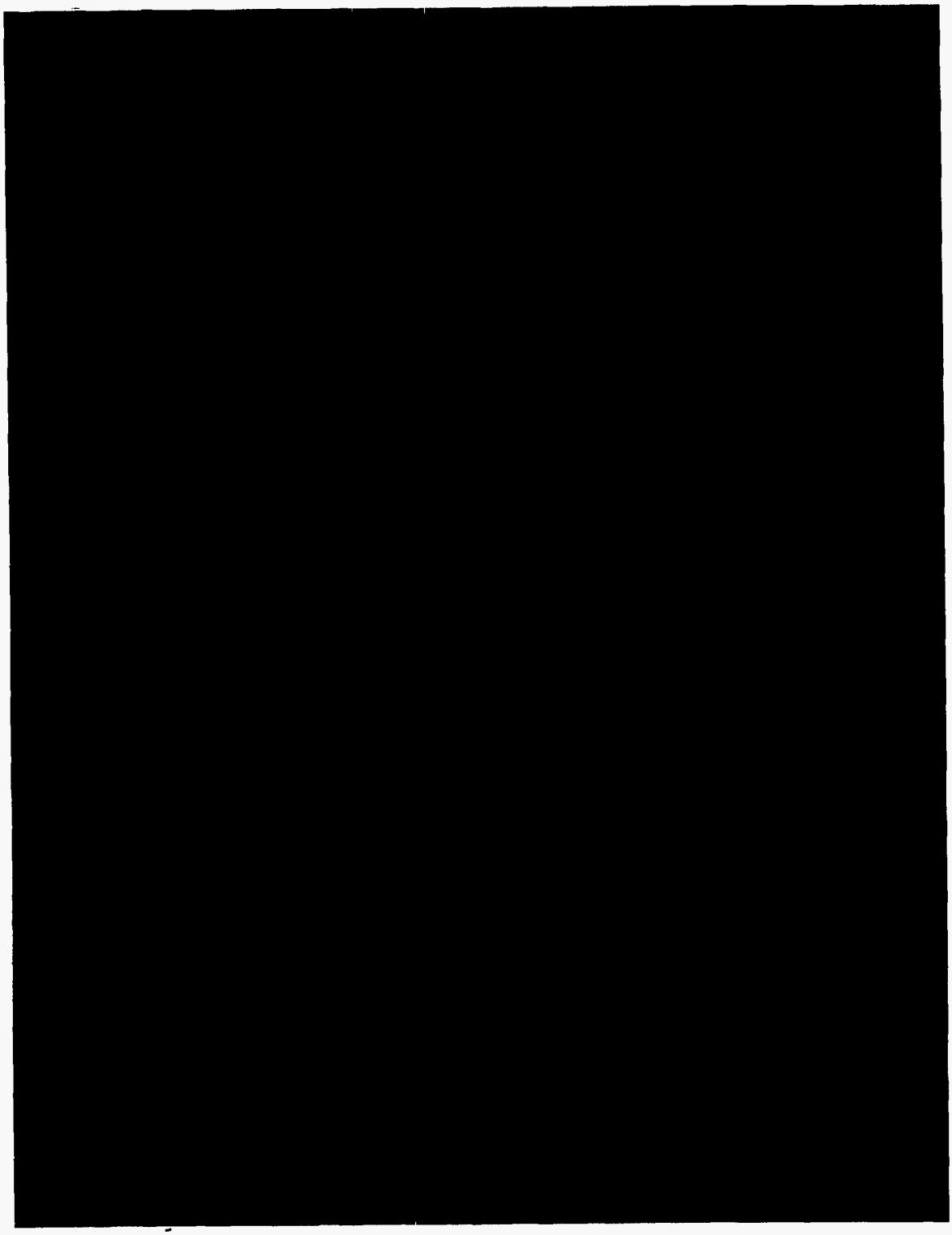

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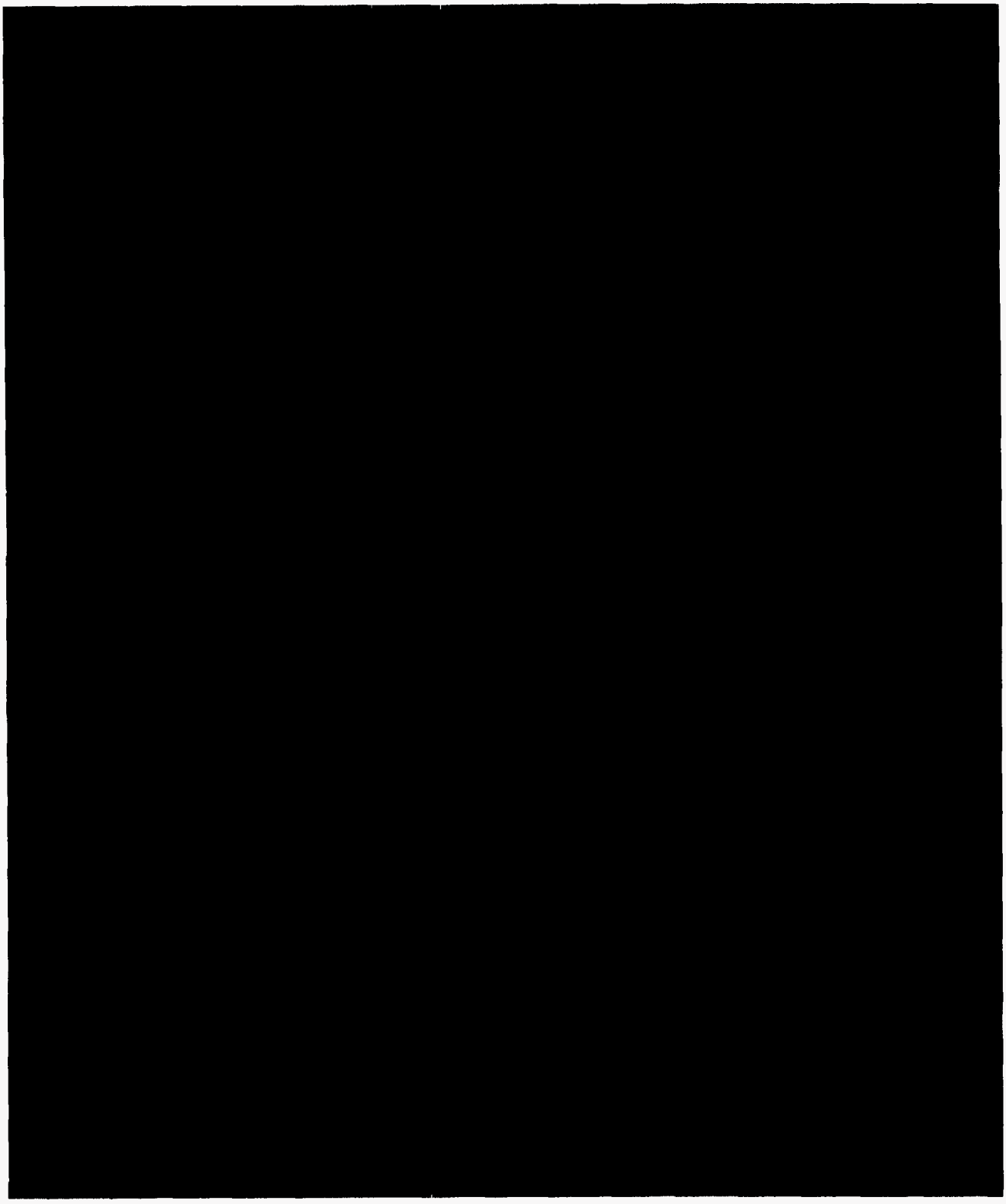

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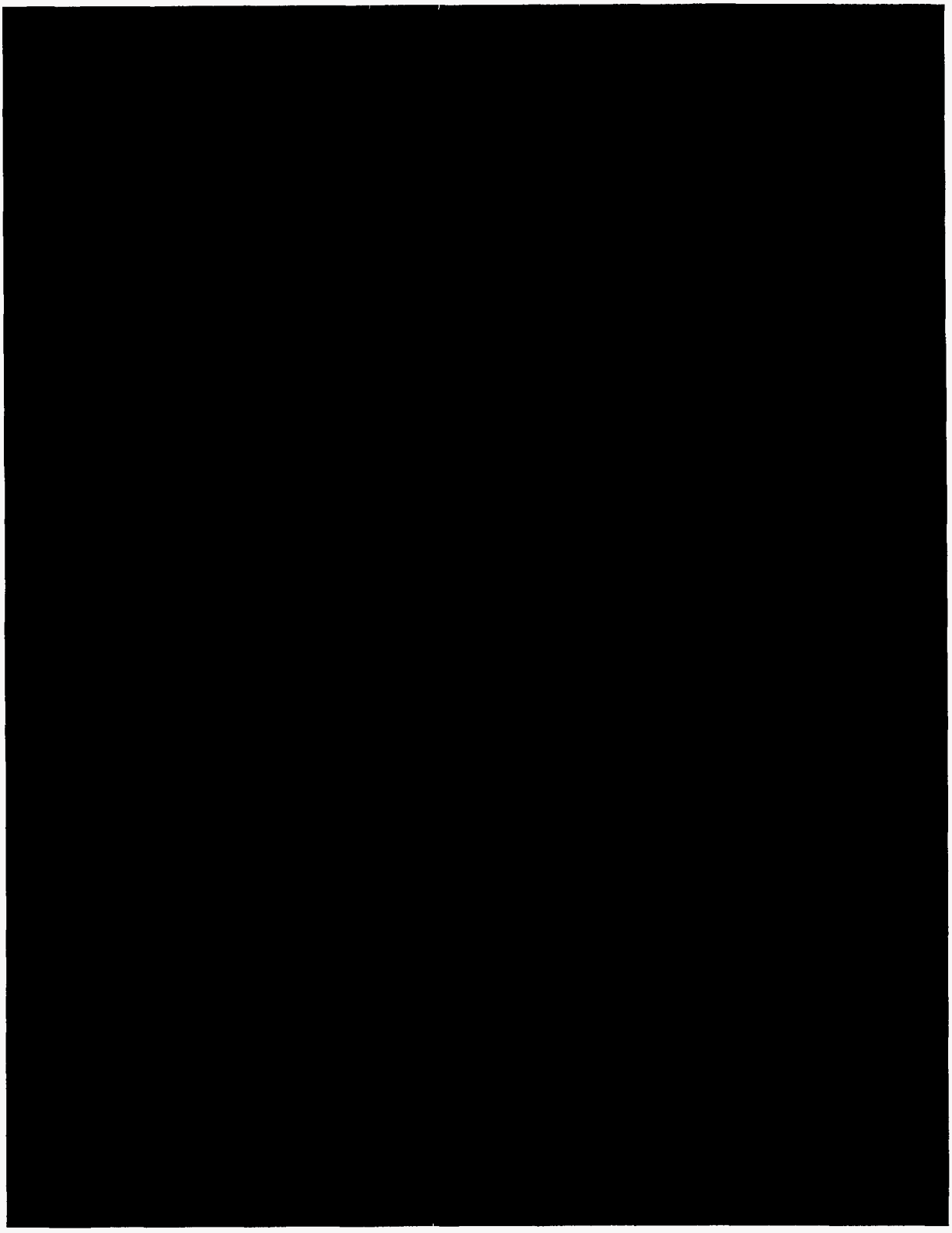

Levy COL Schedule
Jan 23rd, 2009 NRC Telecon

Preliminary Analysis

Jan 25, 2009

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09NC-OPCPOD3-62-000001

Jan 24th NRC Schedule Telecon
Summary

Date Comparison

	Date Requested in COLA submittal Letter (July 30th, 2008)	Dates from NRC via Telecon on Jan 23rd, 2009
Final EIS Issued	June 2010	Sept 22, 2010
LWA Approval	Sept 2010	Dec 5, 2011
COL Issued	Jan 2012	Dec 5, 2011

- Four (4) phase process, i.e. without a draft SER (with open items)
- NRC schedule includes 75 days of "management reserve"
- Assumes 30 day response to RAIs
- Allows 7 months for COL hearings
- Assumes review of DCD revision 17 and "standard COLA" (Bellefonte) do not delay Levy review

Jan 24th NRC Schedule Telecon
Summary (continued)

- PGN requested LWA March 5th, 2008, in advance of the COLA submittal on July 30th, 2008
- NRC states "SER development critical path is governed by Levy geotechnical review"
- NRC states "PGN must meet aggressive RAI response due dates of 30 days"
- NRC states that "LWA [as requested] and COLA geotechnical scope require same critical path duration" and "they do not have the resources to process an LWA"
- Preliminary analysis indicates a ~ 14 to 15 month impact on the Unit 1 inservice date, SSW is confirming analysis
- NRC proposes to transmit schedule on Friday, Jan 30th, 2009

Jan 24th NRC Schedule Telecon
Specific Dates

Environmental Impact Statement (EIS) – (~ 24 months)

	Milestone Description	Estimated Milestone Date
Phase 1	EIS Scoping Complete	May 28, 2009
Phase 2	Draft EIS Issued	Oct 26, 2009
Phase 3	Response to Draft EIS	April 6, 2010
Phase 4	Final EIS Issued	Sept 22, 2010

Safety Evaluation Report (SER) – (~ 31 months)

	Milestone Description	Estimated Milestone Date
Phase 1	RAIs Transmitted to PGN	Feb 11, 2010
Phase 2	Advance SER with No Open Items	Sept 30, 2010
Phase 3	ACRS Review	Feb 20, 2011
Phase 4	FSER issued	May 5, 2011
	COL Issued	Dec 5, 2011

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PGN LWA Scope
September 12th 2008 Updated Request

- **Install and retain perimeter diaphragm wall.**
- **Install and retain permeation grouting in the Avon Park Formation**
- Prepare nuclear island foundation surface with dental concrete
- Place RCC under the nuclear islands
- Install mud mat beneath each nuclear island
- Install waterproofing beneath the mud mat under each nuclear island
- Install rebar in the nuclear island concrete foundations
- Erect safety-related concrete placement forms
- Install Turbine Building, Annex Building, and Radwaste Building foundation drilled shafts
- ~~Install circulating water piping between the cooling tower basins and the entrance point to the turbine building condensers~~. *(not required to be LWA)*
- ~~Install the raw water system intake structure and make-up line to the cooling tower basin.~~ *(not required to be LWA)*

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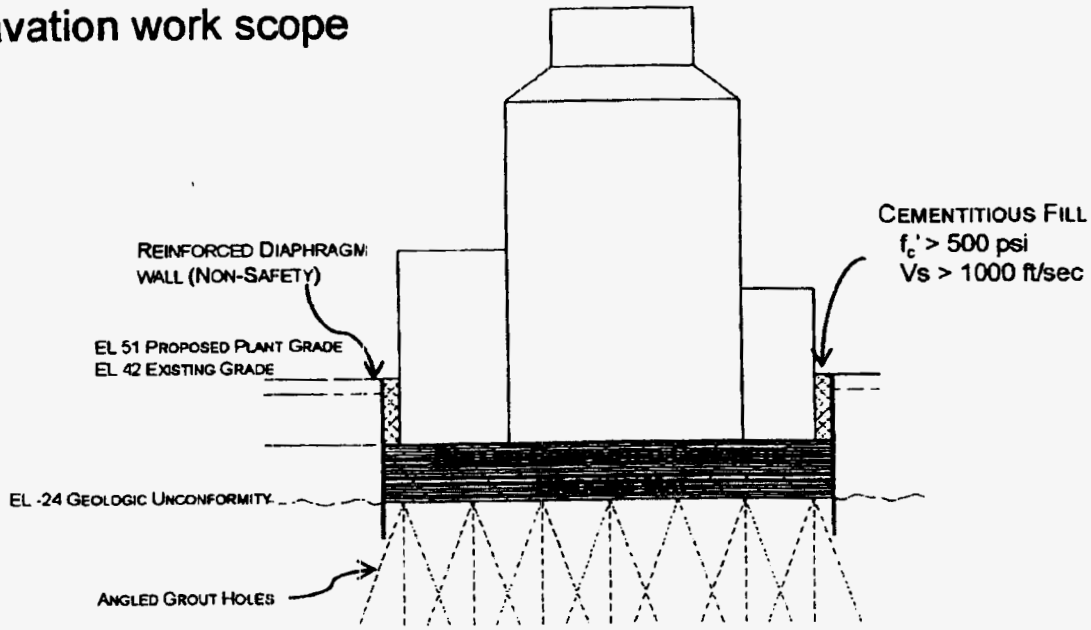
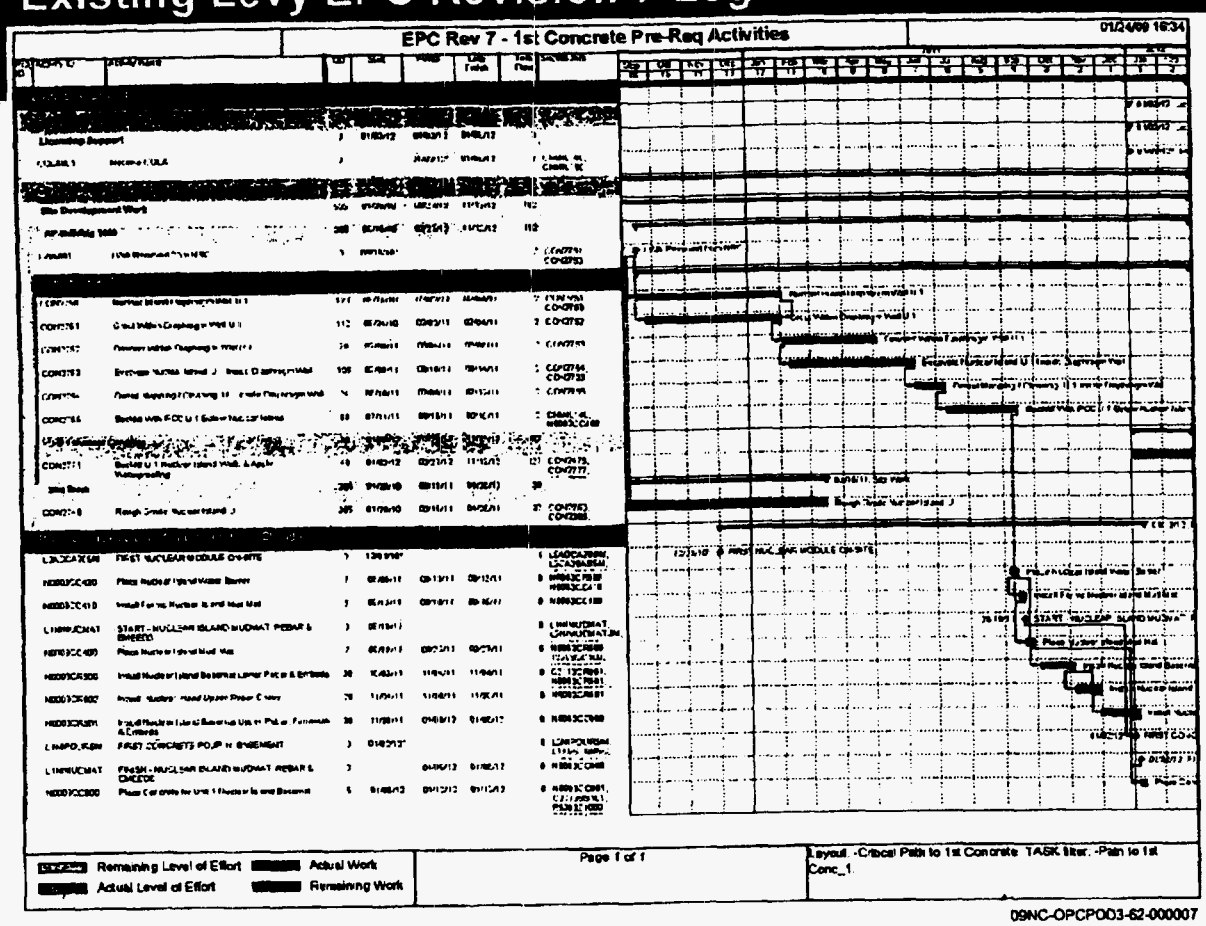
Recommendations

- Reduce LWA request to include only non-safety related diaphragm wall and grouting scope
- This would then permit non-LWA dewatering and excavation work scope



09NC-OPCPOD3-62-000006

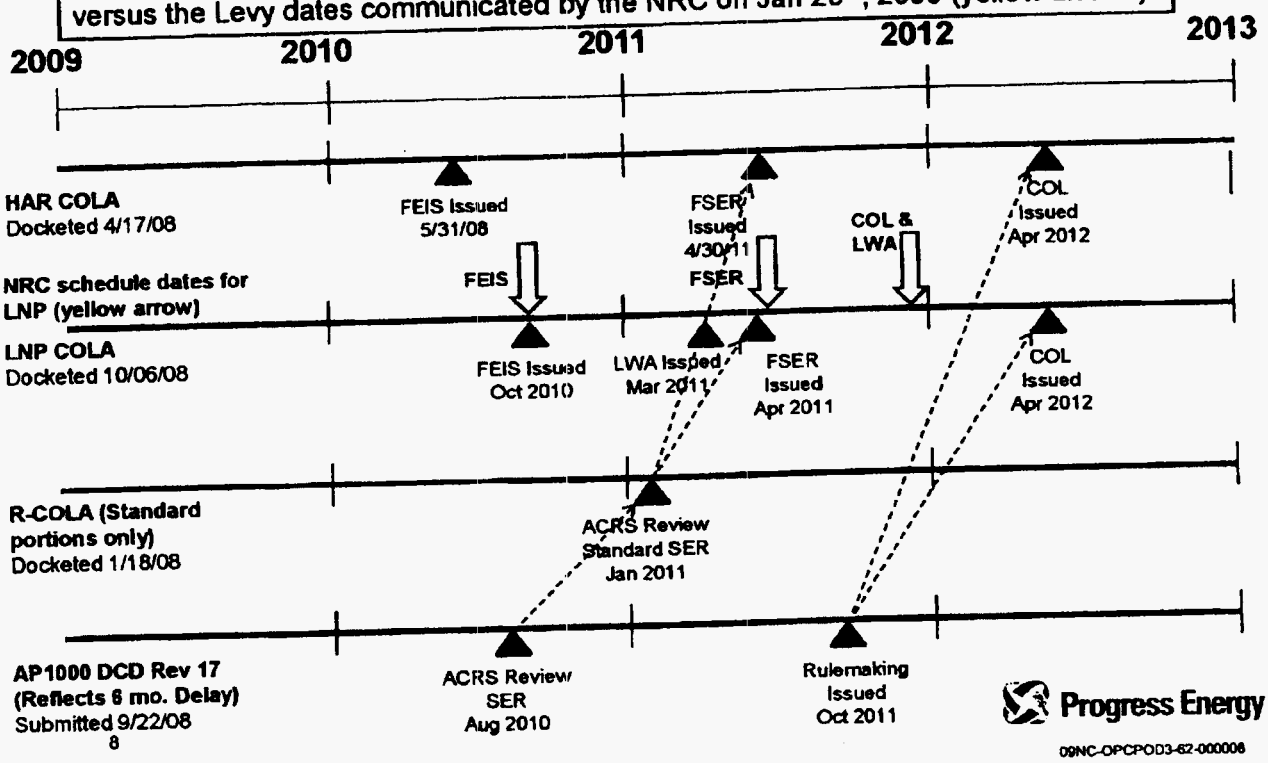
Existing Levy EPC Revision 7 Logic



09NC-OPCP003-62-000007

Levy and Harris Interface with AP1000 DCD and Reference COLA

This chart shows what was expected by PGN in Dec 2008 (shown with red darts) versus the Levy dates communicated by the NRC on Jan 23rd, 2009 (yellow arrows).



09NC-OPCPOD3-62-000006

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Serial: NPD-NRC-2009-061
May 1, 2009

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Subject: Levy Nuclear Power Plant, Units 1 and 2
Docket Nos. 52-029 and 52-030
Notification to Withdraw Request for a Limited Work Authorization

References: 1. Letter from James Scarola (PEC) to NRC (NPD-NRC-2008-022), dated July 28, 2008, "Application for Combined License for Levy Nuclear Power Plant Units 1 and 2, NRC Project Number 756"

2. Letter from James Scarola (PEC) to NRC (NPD-NRC-2008-031), dated September 12, 2008, "LNP COLA Supplemental Information"

3. Letter from Brian Anderson (NRC) to James Scarola (PEC), dated February 18, 2009, "Levy County Nuclear Power Plant Units 1 and 2 Combined License Application Review Schedule"

Ladies and Gentlemen:

Progress Energy Florida (PEF) submitted an application (Reference 1) for a combined license for two AP1000 passive pressurized water reactors to be located at a site in Levy County, Florida.

As part of that application, PEF requested a Limited Work Authorization (LWA) under 10 CFR 50.10(d) be issued before issuance of the Combined License (COL) to allow the early performance of safety-related construction activities. The scope of construction activities requested to be included in the LWA is addressed in Part 6 of the COLA, "Limited Work Authorization and Site Redress Plan." In that application, Progress requested the NRC consider the following milestones:

- June 2010 - Final Environmental Impact Statement (FEIS) Issued
- September 2010 - LWA Issued
- January 2012- COL Issued

PEF did not include in the original LWA scope work to install the Diaphragm Wall and Grouting required for excavation. Because these activities are a necessary prerequisite to excavation at Levy without excessive dewatering, PEF considered these activities to be pre-construction activities under 10 CFR 50.10(a)(2)(v). These activities were to only be

Progress Energy Carolinas, Inc.
P.O. Box 1551
Raleigh, NC 27602

employed as a means to limit groundwater intrusion into the excavation for the nuclear island and do not have a reasonable nexus to radiological health and safety or common defense and security. As agreed in discussions with the NRC as needed to find the COLA acceptable for docketing, PEF revised the COLA to include the diaphragm wall and grouting in the scope of the LWA request, but stated if further NRC review resulted in a determination that the diaphragm wall and grouting may be conducted as pre-construction work, PEF's intent would be to remove these activities from the LWA scope in order to achieve schedule and cost efficiency benefits associated with the originally proposed LWA work (Reference 2).

The NRC published the review schedule for the Levy COLA on February 18, 2009 (Reference 3). That letter identified that the FEIS would be issued no earlier than September 2010. In that letter, NRC stated the following: "During a January 23, 2009, teleconference call, we discussed with members of your staff how the complex geotechnical characteristics of the Levy County site relate to the LWA review. We understand now that you plan to modify the scope of activities requested in the LNP LWA. Upon receipt of your letter which identifies the current planned scope of LWA activities, we will prepare a review schedule related to the LNP Units 1 and 2 LWA. As such, the dates provided in Table 1 represent milestones related to COL issuance alone."

Subsequent to NRC issuing the February 18, 2009 letter, PEF has studied how the scope of LWA activities could be modified and still provide a meaningful schedule advantage and construction cost efficiencies compared to starting construction activities once a COL was issued. Because the originally requested LWA activities cannot be commenced before the COL, the schedule benefits and efficiencies in construction work originally envisioned by Progress cannot be achieved. Furthermore, there is no significant benefit to performing the diaphragm wall as an LWA activity without the grouting work as that would not allow excavation to proceed. As stated in the NRC schedule letter of February 18, 2009, Progress's suggested milestones and proposed scope for LWA activities are not feasible due to the timeframe for the NRC to review the complex geotechnical characteristics of the Levy site. Therefore, there appears to be no significant benefit in continuing to pursue an LWA.

Progress remains committed to meeting the identified need of its Florida customers for efficient and effective baseload power that also accomplishes the State's objectives for adequate fuel diversity and security, reducing greenhouse gas emissions, lessening reliance on more volatile priced fossil fuels, and increasing reliable baseload power plant capacity. PEF continues to believe that maintaining the option of constructing nuclear power plants at Levy is important to achieving these objectives. It appears there is no significant benefit for an LWA to balance the schedule risk that could arise from splitting effort between LWA and COL reviews. PEF concludes that the objectives of preserving the option for nuclear power to meet its Florida customers' needs can be facilitated by concentrating review efforts on issuing the COL, particularly because it is clear an LWA would not accomplish the objectives of Progress's original proposal. As a result, PEF has decided to no longer pursue an LWA, and is hereby notifying NRC that it is withdrawing its request for an LWA and requests that the NRC not continue to perform any review activities associated with an LWA.

Conforming changes to the COLA to reflect the removal of the LWA are not being proposed at this time, but will be included in the annual update of the FSAR and accompanying changes to the environmental report and other COLA Parts.

If you have any questions, or need additional information, please contact me at (919) 546-6107 or Bob Kitchen at (919) 546-6992.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on May 1, 2009.

Sincerely,

Garry D. Miller
General Manager
Nuclear Plant Development

cc : U.S. NRC Director, Office of New Reactors/NRLPO
U.S. NRC Office of Nuclear Reactor Regulation/NRLPO
U.S. NRC Region II, Regional Administrator
Mr. Brian C. Anderson, U.S. NRC Project Manager

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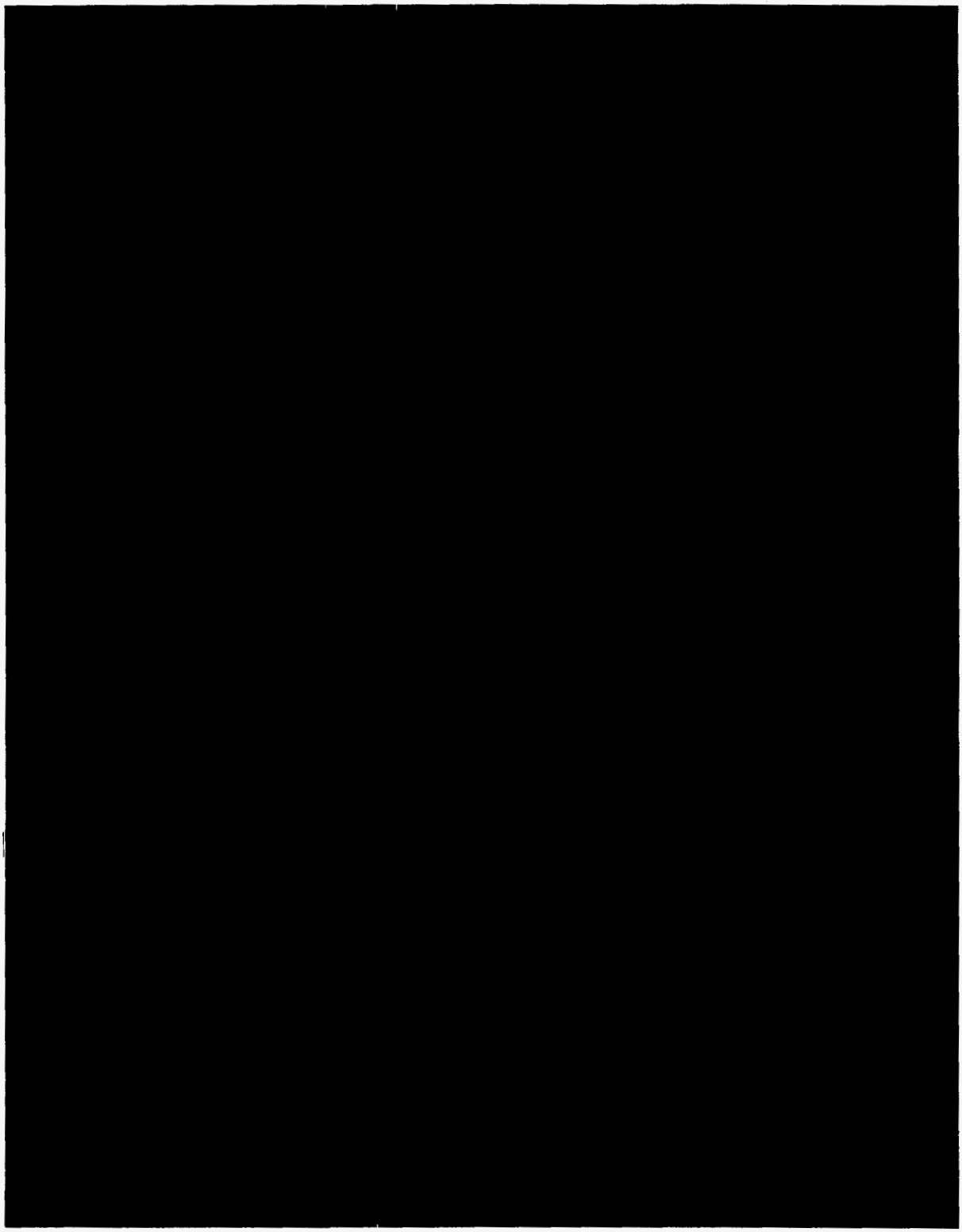

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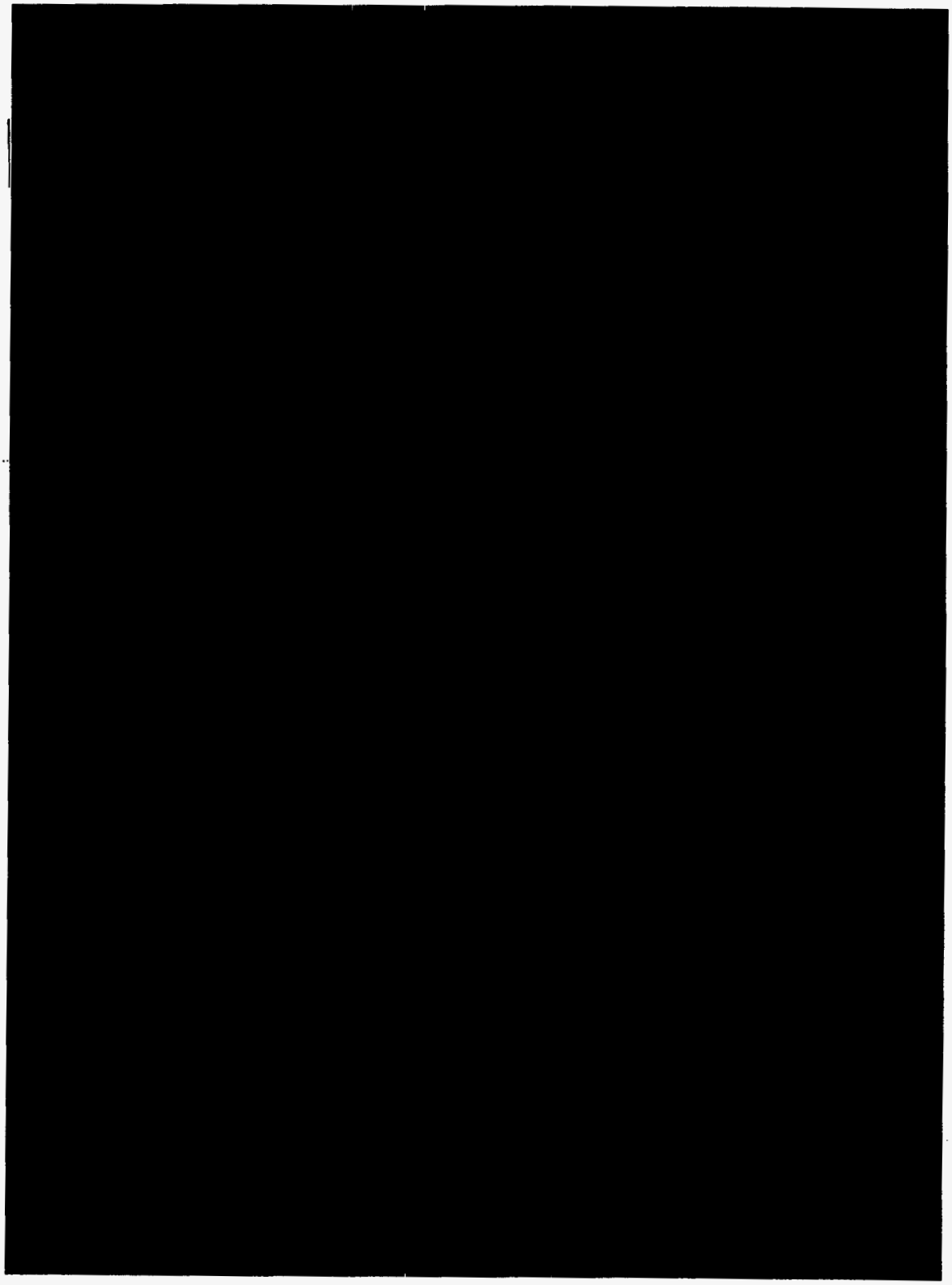

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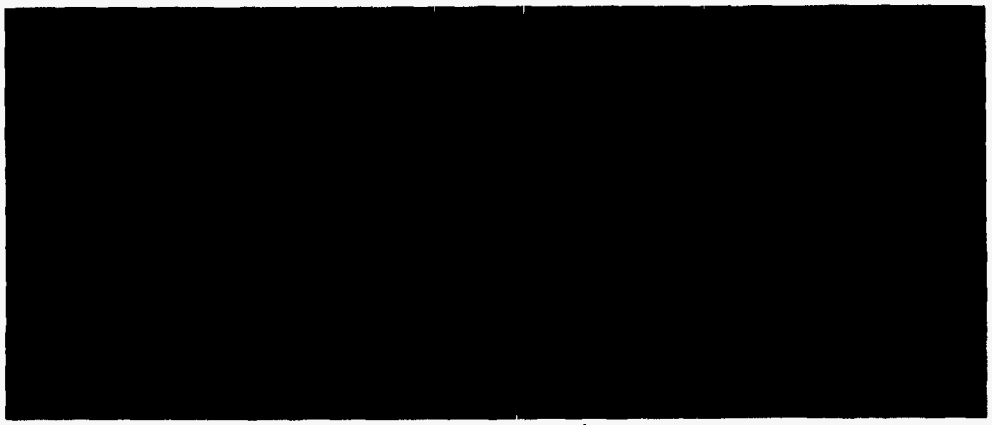

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

IN RE: NUCLEAR POWER PLANT COST RECOVERY CLAUSE
Docket No: 090009

/

DEPOSITION TRANSCRIPT

Volume I, Pages 1-103

DEPOSITION OF: GARRY DALE MILLER

TAKEN AT: Carlton Fields
4221 W. Boyscout Boulevard, Suite 1000
Tampa, Florida

DATE & TIME: July 2, 2009
Commencing at 9:00 a.m.

REPORTED BY: Penny M. Appleton, RPR
Notary Public

expectation.

Q Okay. If you had gotten -- just for purposes of this discussion, it's true that you signed the engineering procurement and construction contract with the consortium of Shaw Stone & Webster and Westinghouse Electric Company on December 31st?

A That is correct.

Q Okay. Of 2008. Is that right?

A That is correct.

Q If you had gotten the letter that you got on February 18th, if you had gotten that same letter on December 1st, would you have signed the EPC?

A In the form that it was signed, no. We would have had to modify the EPC agreement for that shift in dates.

Q Okay. All right. Do you have an idea how it would have been modified?

A Probably, similar to what we're doing right now in our ongoing negotiations.

Q Would you have signed it by the end of 2008?

A I do not know whether we could have concluded the changes necessary to finish those changes in advance of December 31st.

Q Okay.

A For your scenario of December 1st.

Q Right. And that's purely hypothetical. I

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Progress Energy

William D. Johnson
Chairman, President
and Chief Executive Officer

April 15, 2009

BOARD OF DIRECTORS
PROGRESS ENERGY, INC.

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We will use the attached presentation in our Board conference call this Friday, April 17, at 1 p.m. (call-in number: 888-363-4735; access code 5814305). The purpose of the call is to discuss our near-term plan and year-end options regarding the Levy nuclear project in Florida.

[redacted]

P.O. Box 1551
Raleigh, NC 27602

t: 919 546 6863
f: 919 546 3210

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[redacted]

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[redacted]

If you have questions before our call, please let me know.

Sincerely,

William D. Johnson

WDJ/dj

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Levy Nuclear Project Update

April 17, 2009

Progress Energy

09NC-OPCPOD3-61-000051

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Today's Agenda/Decisions

- Input on options for Levy based on NRC schedule and other issues
- Impact of public announcement of schedule shift
- Key 2009 milestones and decisions to be made before 12/31/09
- Customer impact and other economic effects of schedule shift
- Related regulatory and other rate filings
- Other potential impacts

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Conditions to Proceed with Levy Project

Levy Project Success Factors

[redacted]

Levy Project Must Support Our Financial Success Factors

[redacted]

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Landscape Changes

		Potential Implications
Capital market deterioration Share price near or below book value Our sector no longer holding up Debt market concerns (unsecured)	→	**Ability to raise capital**
Federal energy policy landscape Climate change Nuclear/coal policies Renewables Environmental regulation	→	**Timing and support for new nuclear**
Broad economic indicators continue to show weakness Prospects for late 2009/early 2010 recovery uncertain Impact on load/energy Customer ability to pay	→	**Resource planning impacts/ challenging rate environment**
[redacted]	→ CONFIDENTIAL →	[redacted]
Florida regulatory/legislative climate Price impact Potential legislation	→	**Timing and support for new nuclear**

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Adjustments to Strategy

- Minimize nuclear capital expenditures prior to issuance of combined operating license (COL)
- Reduce external capital requirements over next two to three years to allow financial markets to recover
- Provide time for greater clarity in federal climate change policy

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Levy Options

- Option 1 – 20-month shift for Levy 1, Unit 2 follows 18 months
- Option 2 – 36-month shift for Levy 1, Unit 2 follows TBD
- Option 3 – 36-month shift for Levy 1, Unit 2 follows 18 months
- Option 4 – Preserve COLA

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20-Month Shift Alternative

- Alter Levy construction schedule
  - Shift Unit 1 by 20 months – April 2018
  - Unit 2 completion to follow by 18 months
  - Transmission shift remains flexible
- Outcome
  - Accommodates expected LWA outcome
  - Provides additional time for and certainty on:
    - Obama Administration nuclear position
    - Financial market and economic rebound
    - Customer/policymaker support
    - PEF rate case, first NCRC prudence hearing
    - Federal policies on carbon, renewables and coal
    - JO participation
    - NRC COLA process
    - Commodity/labor stabilization
  - [redacted] CONFIDENTIAL
  - Minimizes near-term customer price impact

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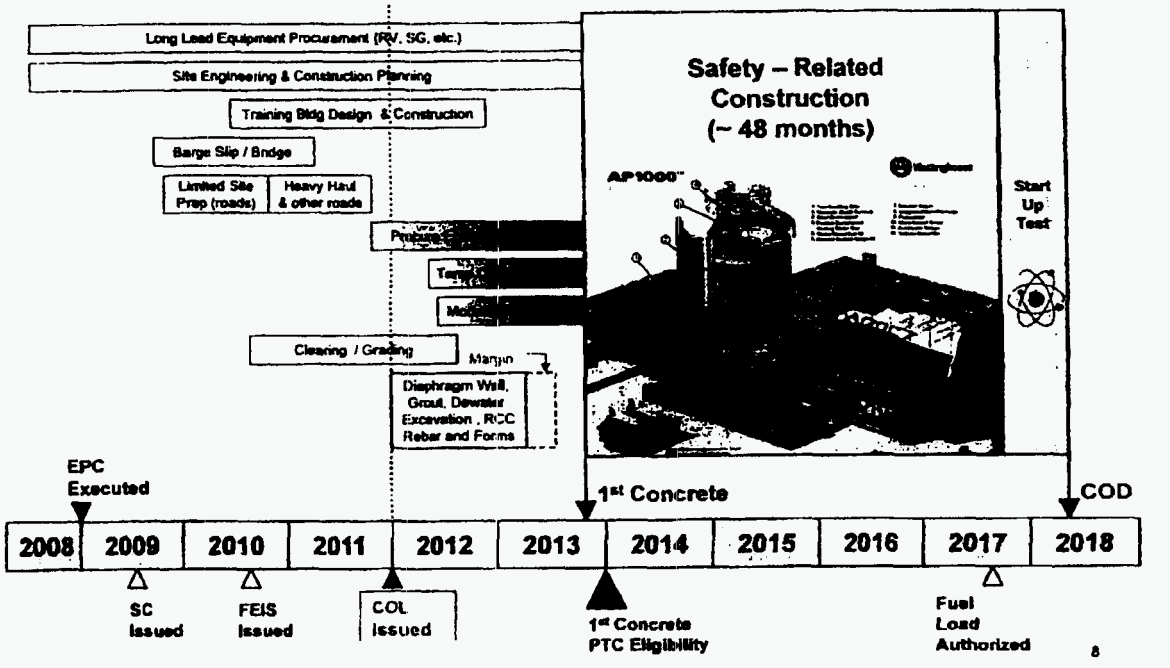
20-Month Shift – Levy Schedule
Adjusted Pre-Construction Activities (dates are approximate)



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09NC-OPCPOD3-61-000058

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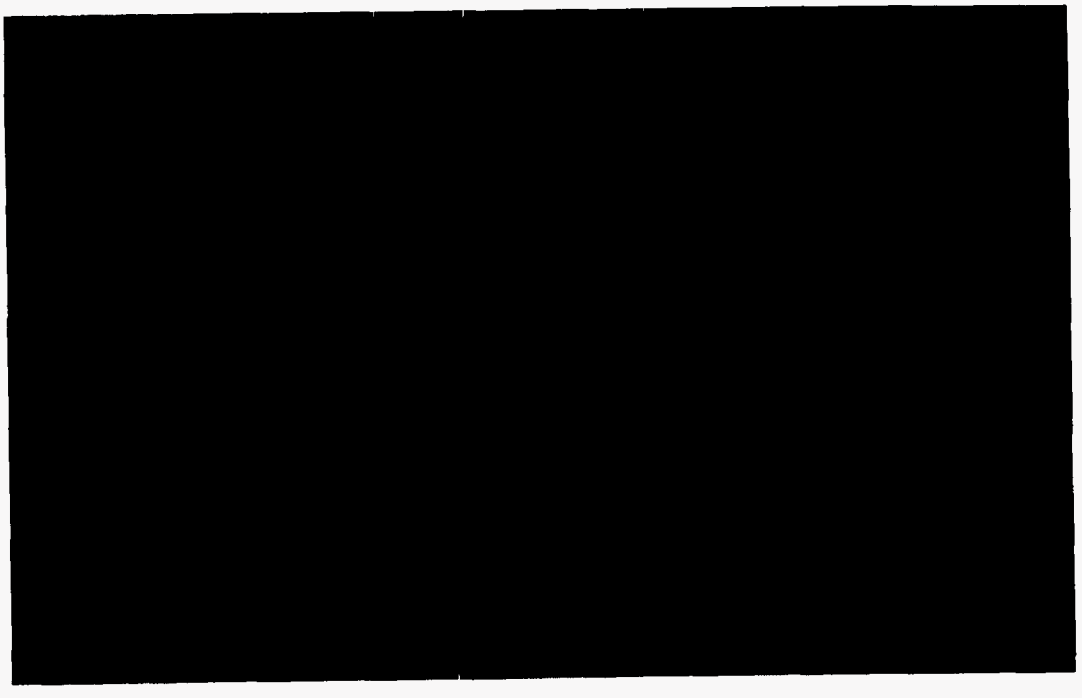
Levy Regulatory Milestones and Illustrative Cash Flows



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36-Month Shift Alternative

(Bold italics denotes differences from 20 month shift)

- Alter Levy construction schedule
  - ***Shift Unit 1 to June 2019 (~36 months)***
  - Unit 2 completion to follow by 18 months
  - Transmission shift remains flexible
- Outcome
  - Accommodates expected LWA outcome
  - Provides additional time for and certainty on:
    - Obama Administration nuclear position
    - Financial market and economic rebound
    - Customer/policymaker support
    - PEF rate case, first NCRC prudence hearing
    - Federal policies on carbon, renewables and coal
    - JO participation
    - NRC COLA process
    - Commodity/labor stabilization
  - [redacted] CONFIDENTIAL
  - Minimizes near-term customer price impact

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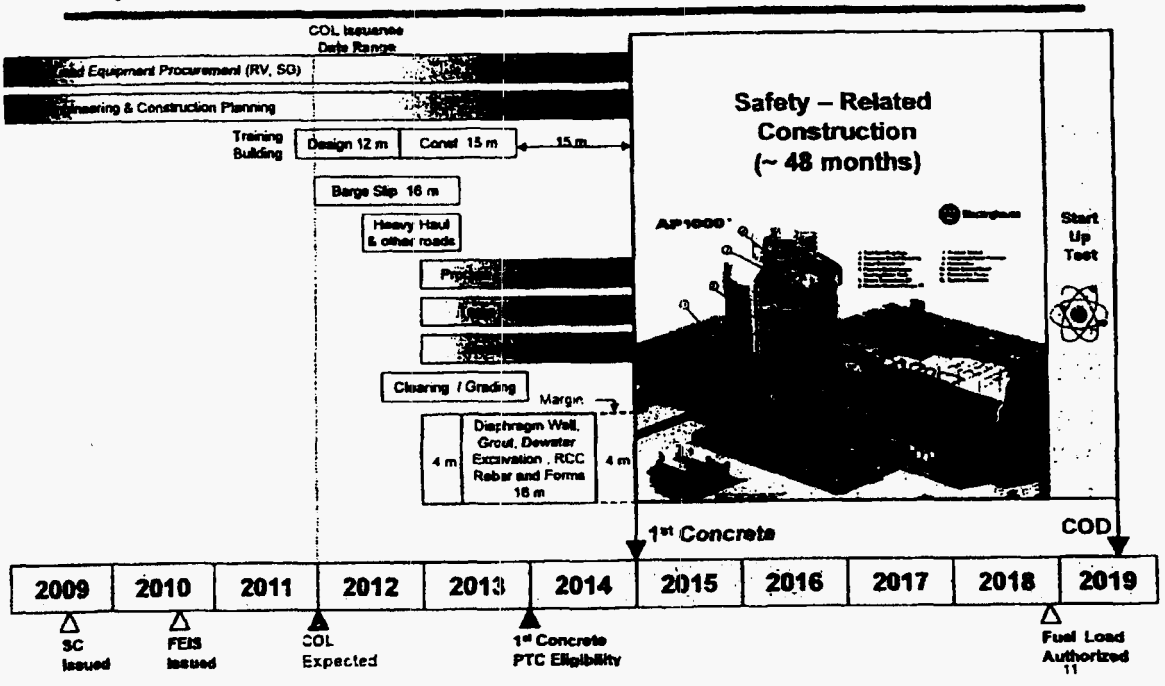
36-Month Shift – Levy Schedule (COD mid-2019)

Adjusted Pre-Construction Activities (dates are approximate)



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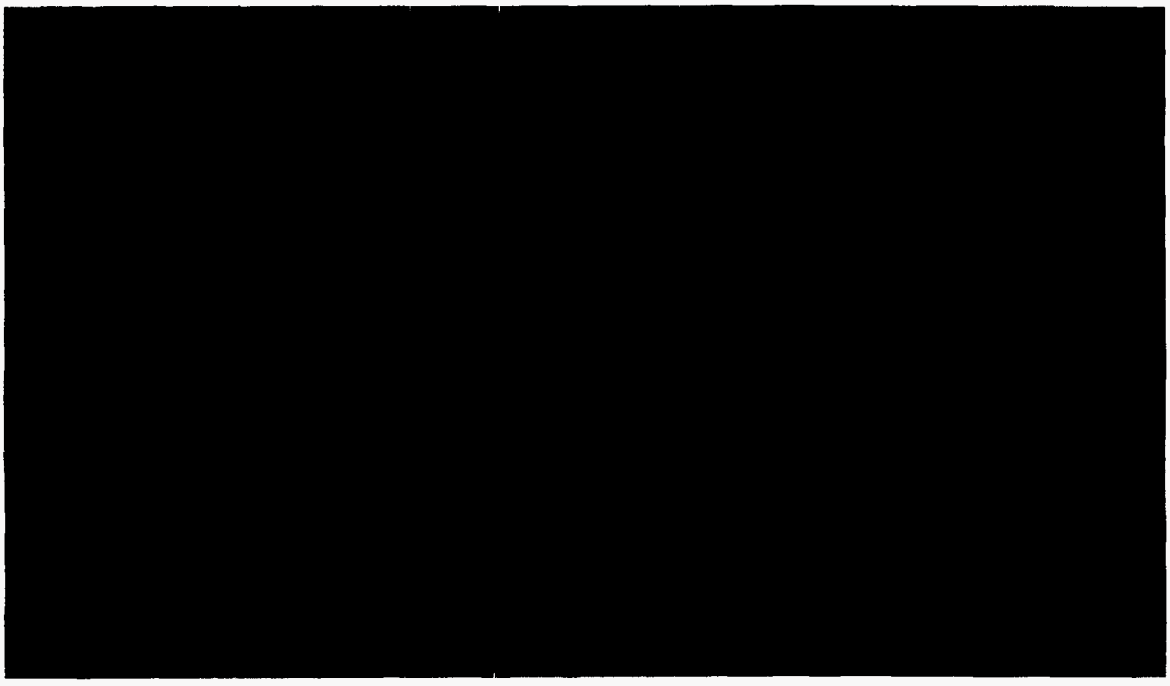
Illustrative Example Only

Consolidated Financial Impact ($ millions)

Capital Markets Requirements – 2 Units @ 50%, 36-Month Shift



09NC-OPCPOD3-61-000062

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Nuclear Cost Recovery Filing – May 1

- Annual Nuclear Cost Recovery Clause (NCRC) filing on May 1
- Primary issues Redacted - Privileged

[redacted]

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Next Steps

- [redacted] CONFIDENTIAL
- [redacted]
- File nuclear cost recovery petition on May 1
- Make public announcement of schedule shift on May 1
- [redacted]

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Summary

- **Levy nuclear remains vital to PE's Balanced Solution**
- **Basis for shift in planned commercial operation**
  - Necessary to align project timing with NRC LWA schedule
- **Provides additional benefits**
  - Reduces near-term capital expenditures
  - Provides near-term customer price relief
  - Allows for more certainty in federal electric industry policy
  - Allows settling of economy and financial markets
- **PE remains committed to new nuclear in FL**
  - Strongest state on policy support for new nuclear
  - Early local, regional and state support have aided project
- **Ongoing evaluation and deliberate, cautious approach are prudent given our risk environment**

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Alternative Strategic Investment Options for PEC

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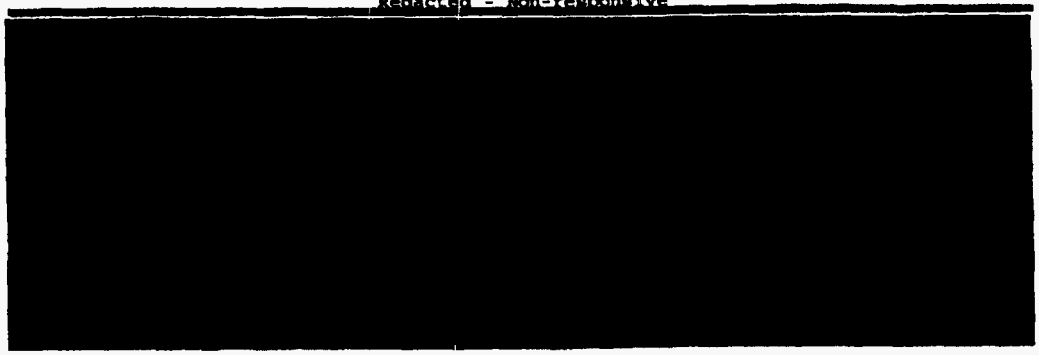

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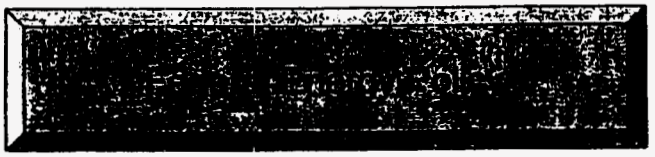

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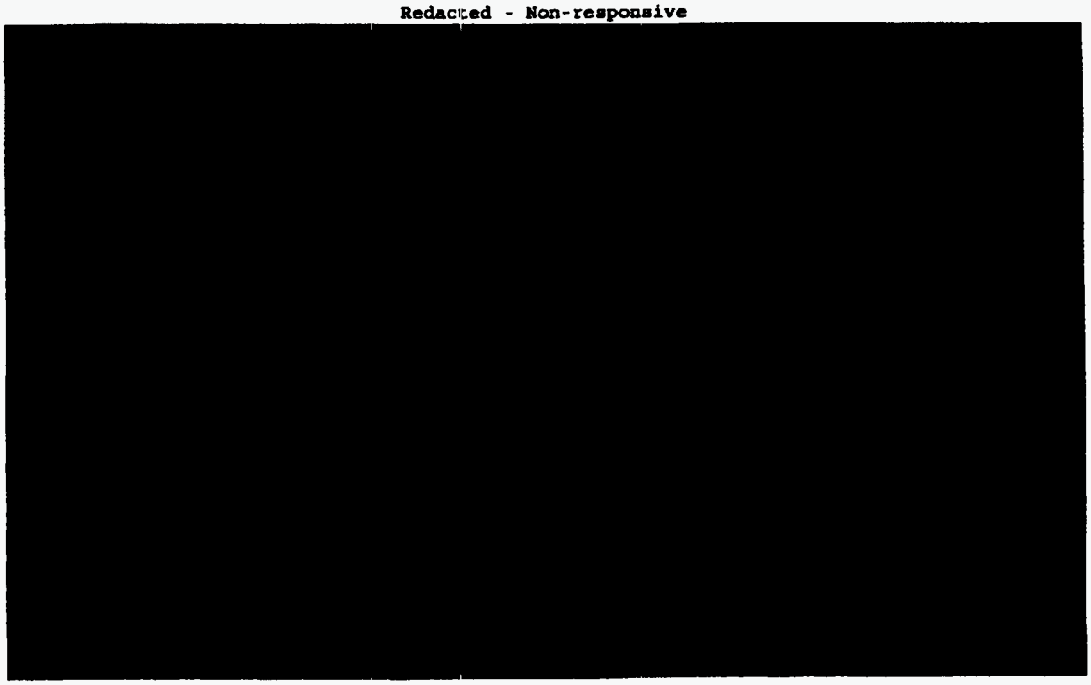

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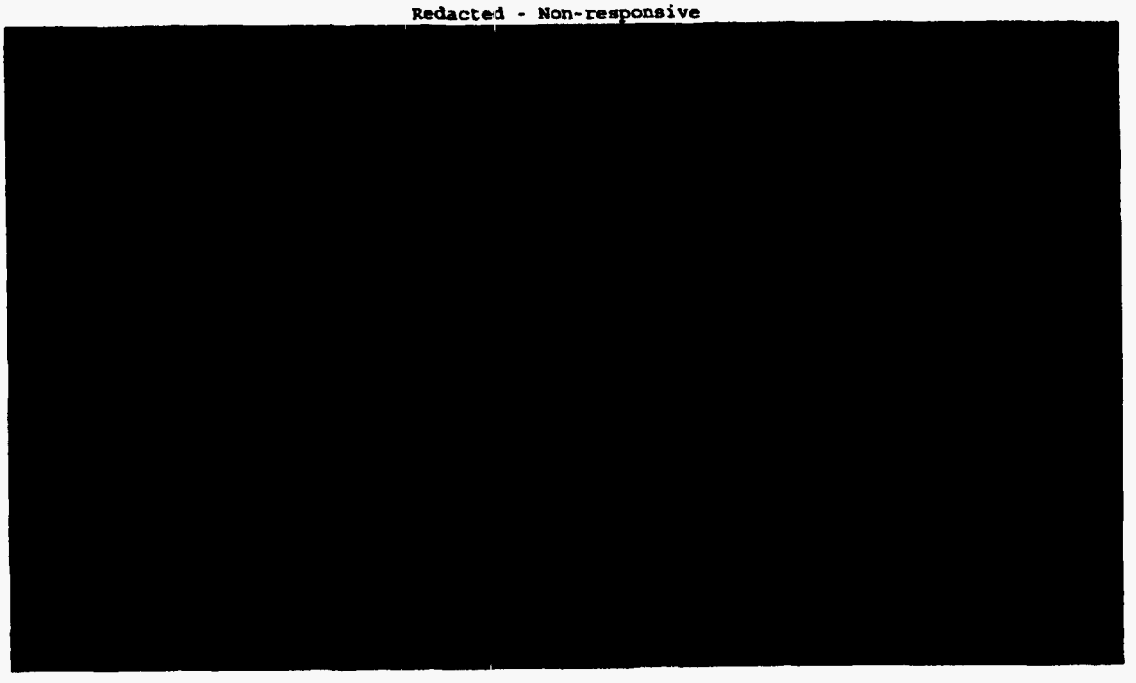

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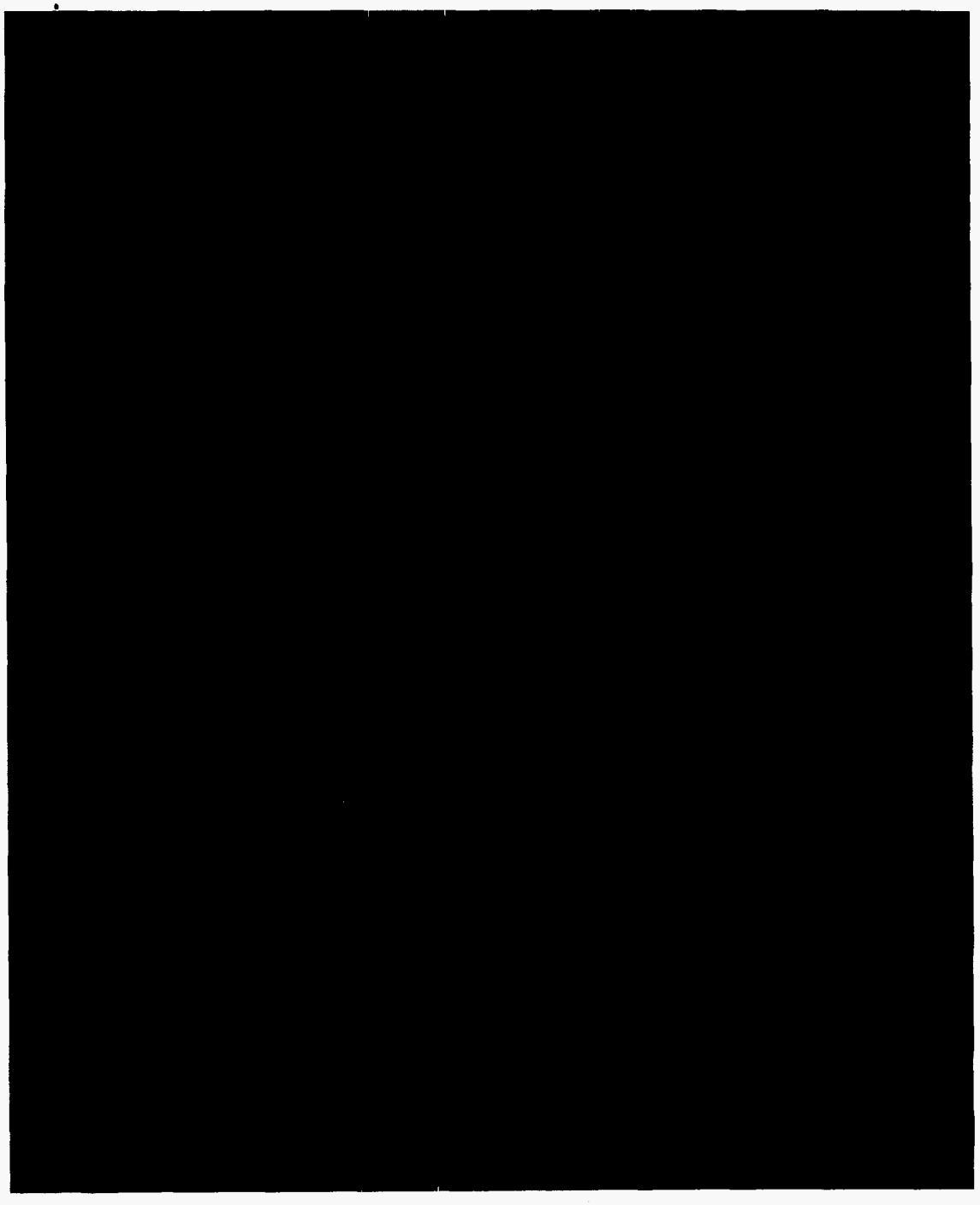

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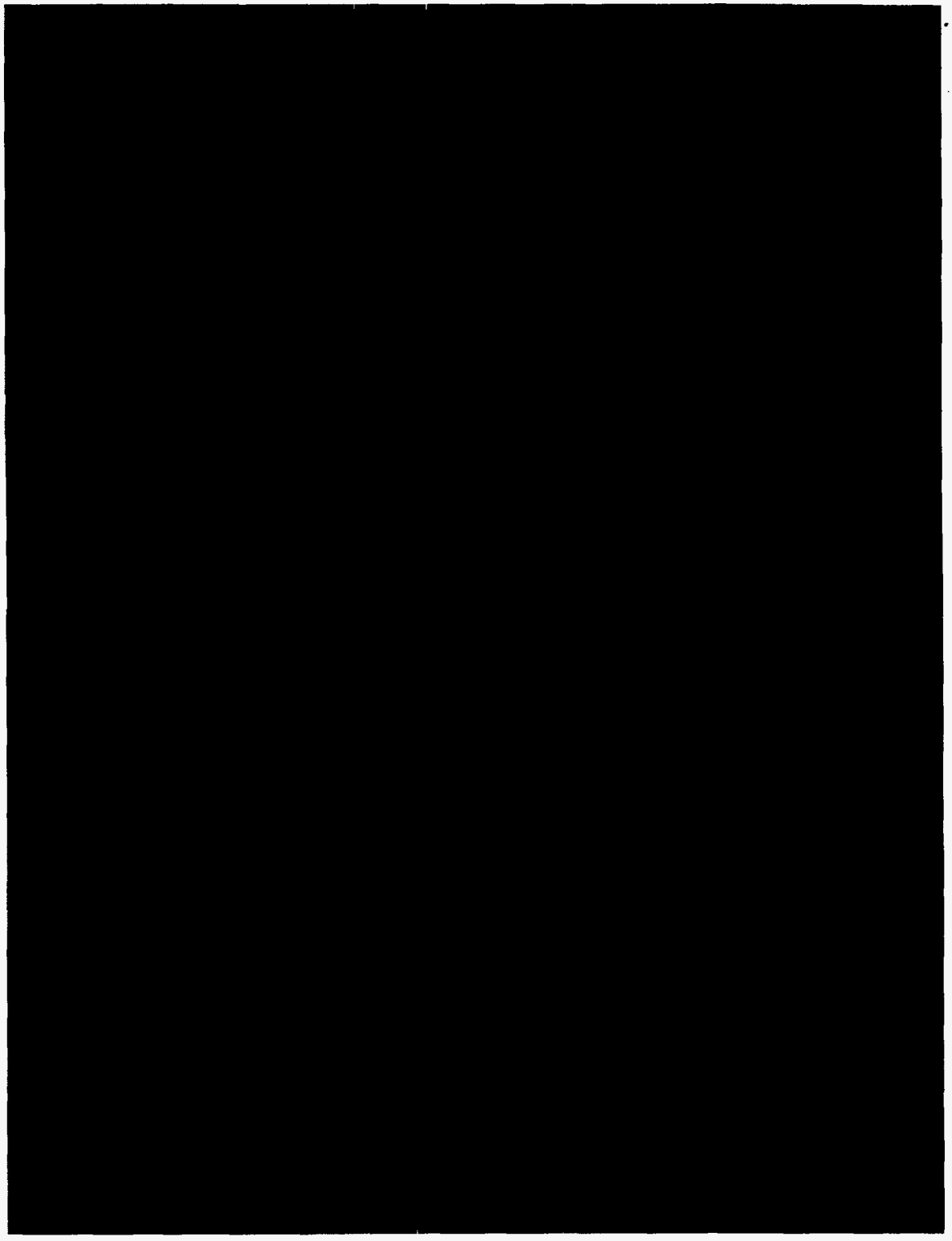

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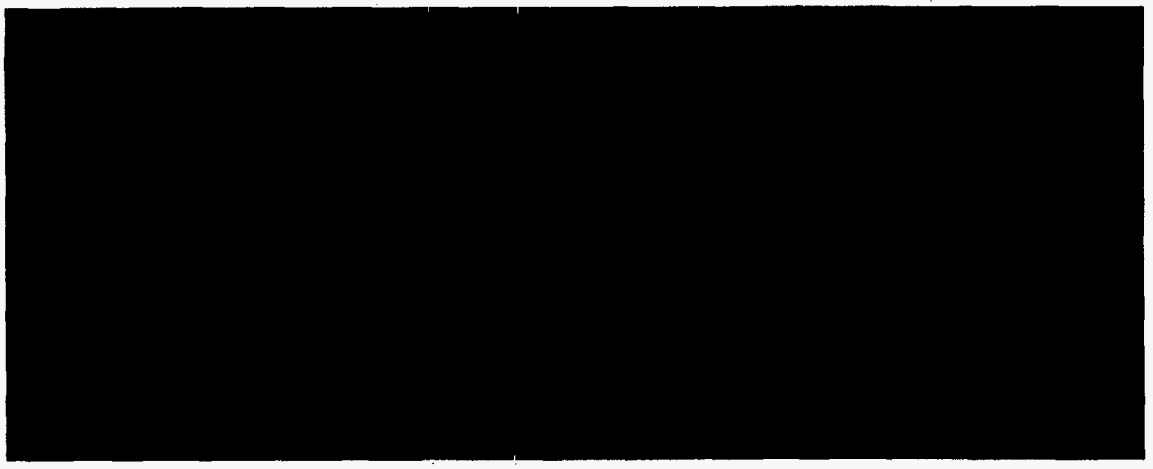

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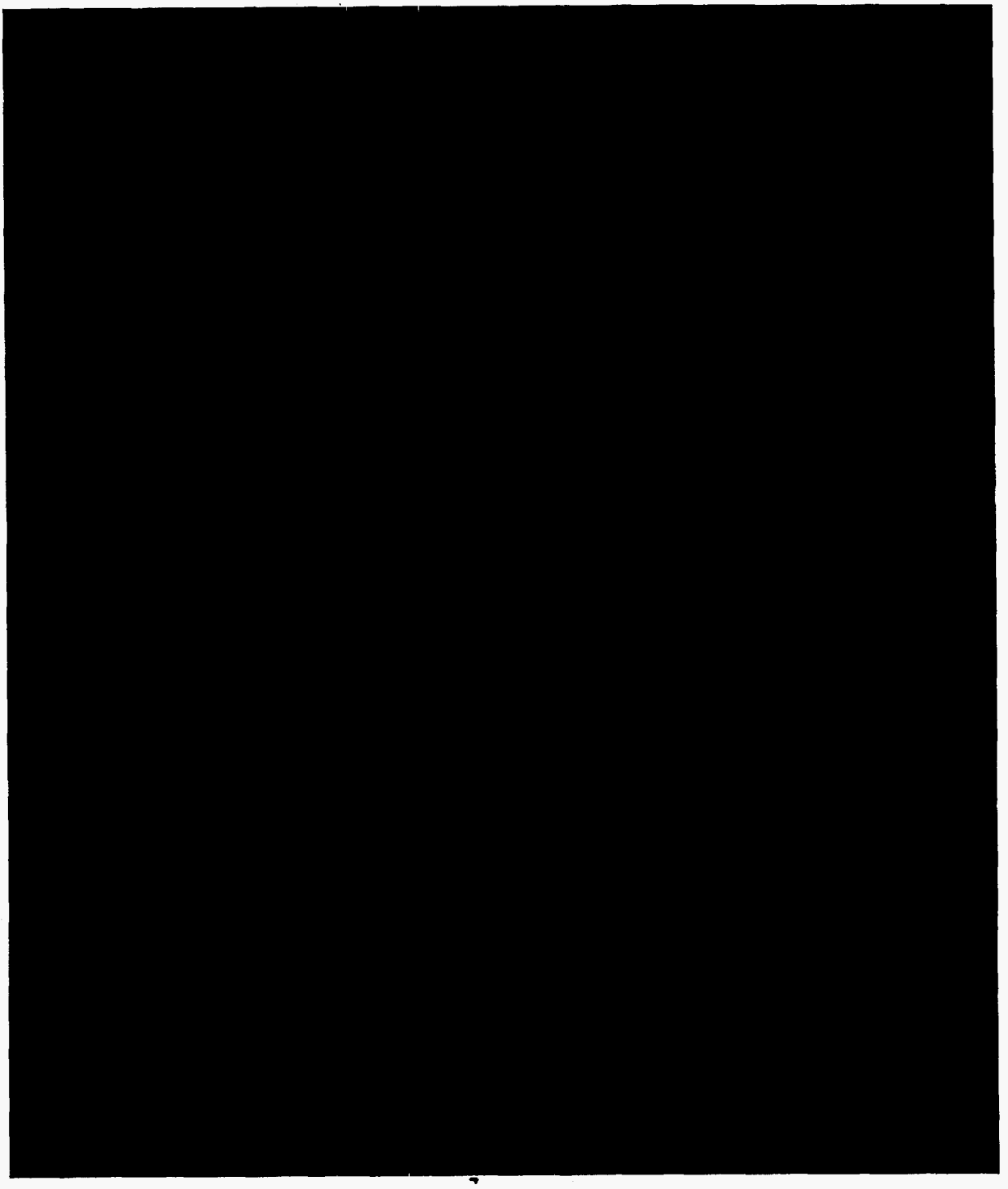

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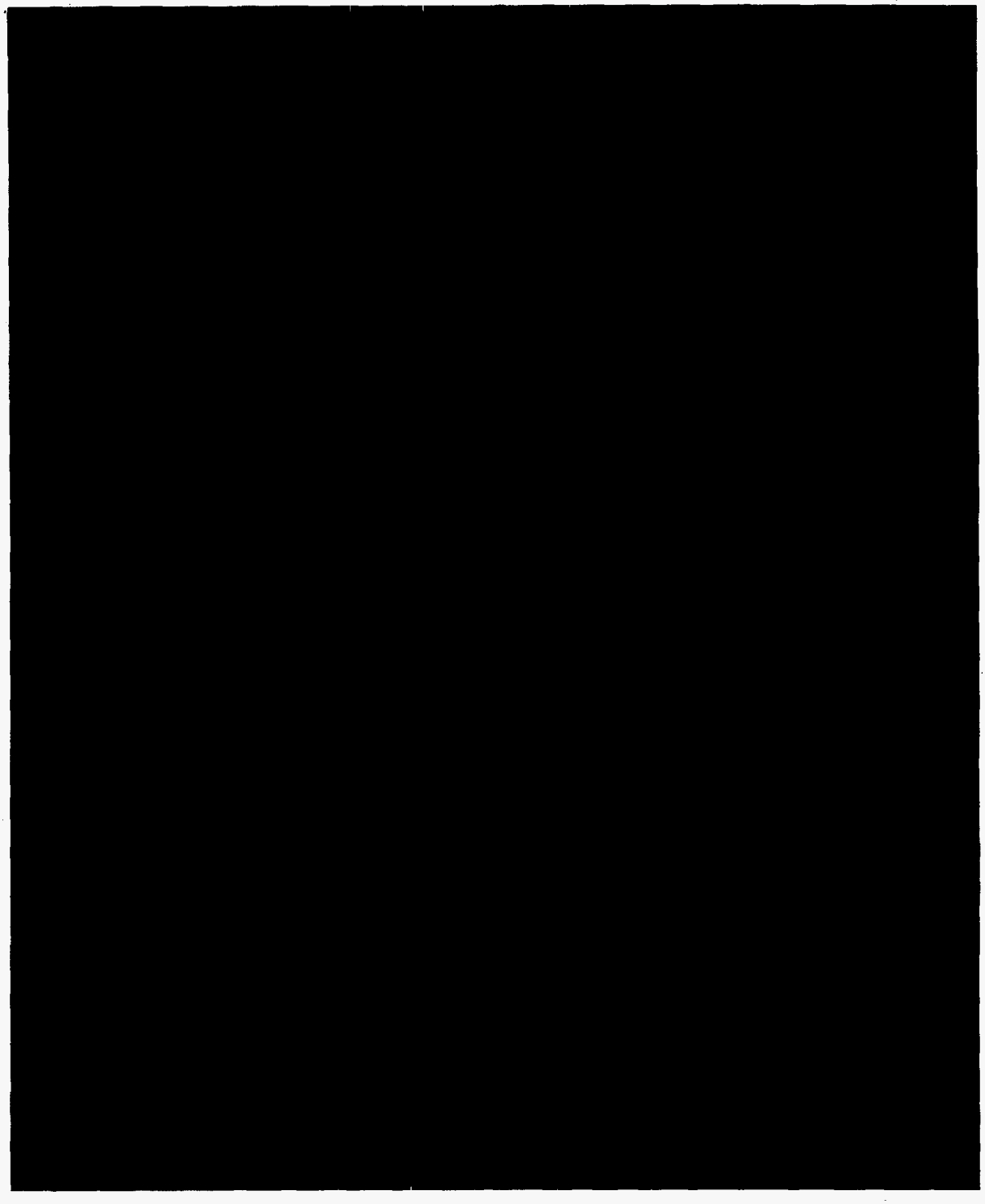

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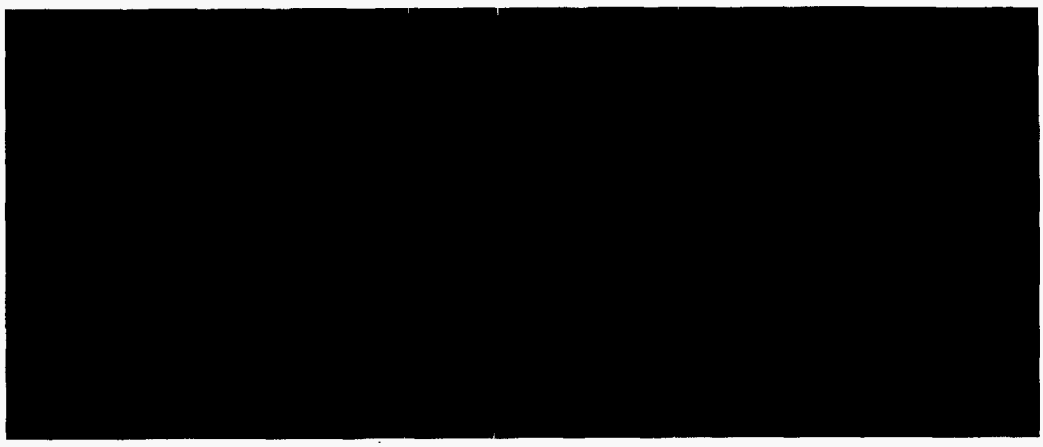

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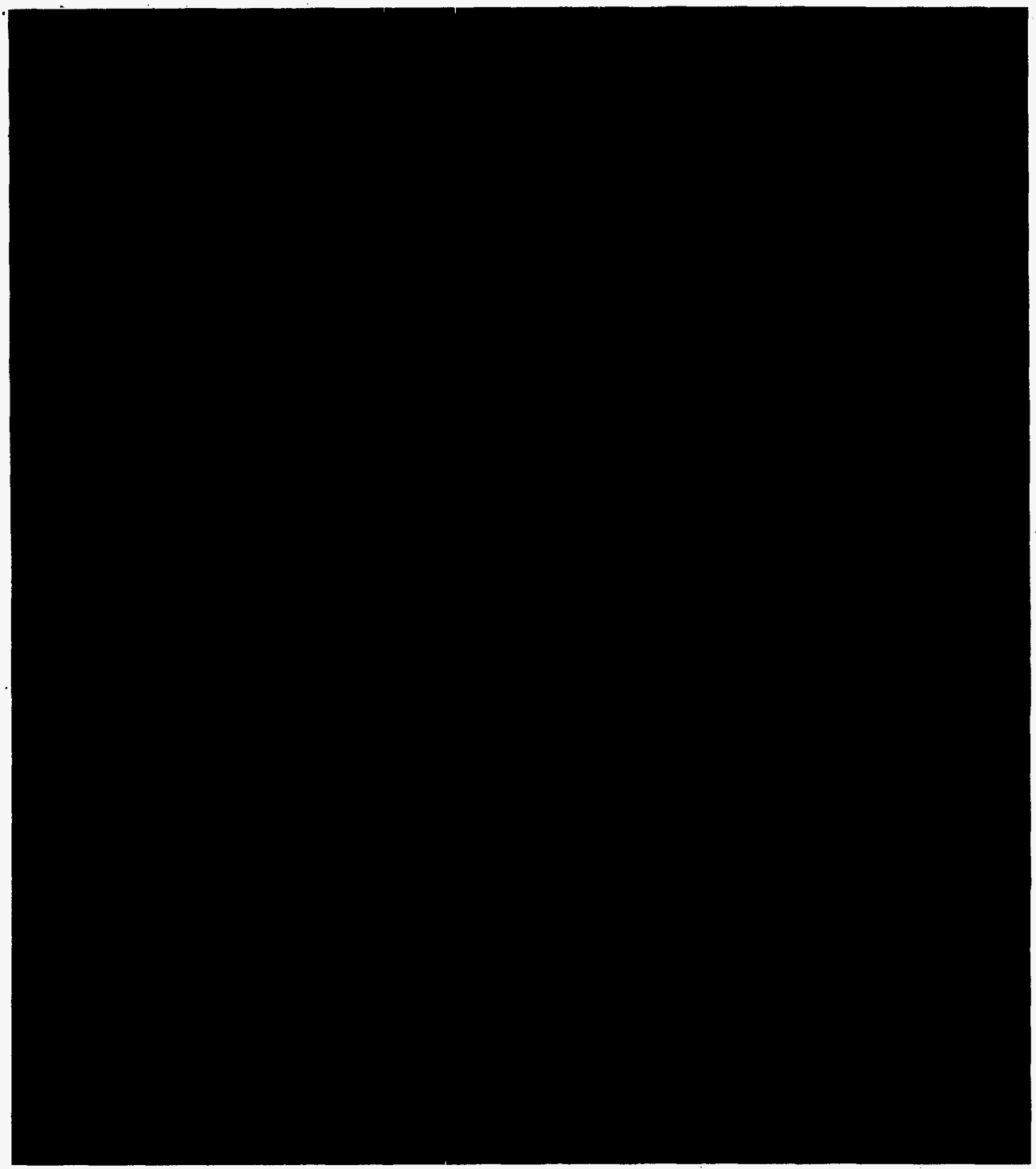

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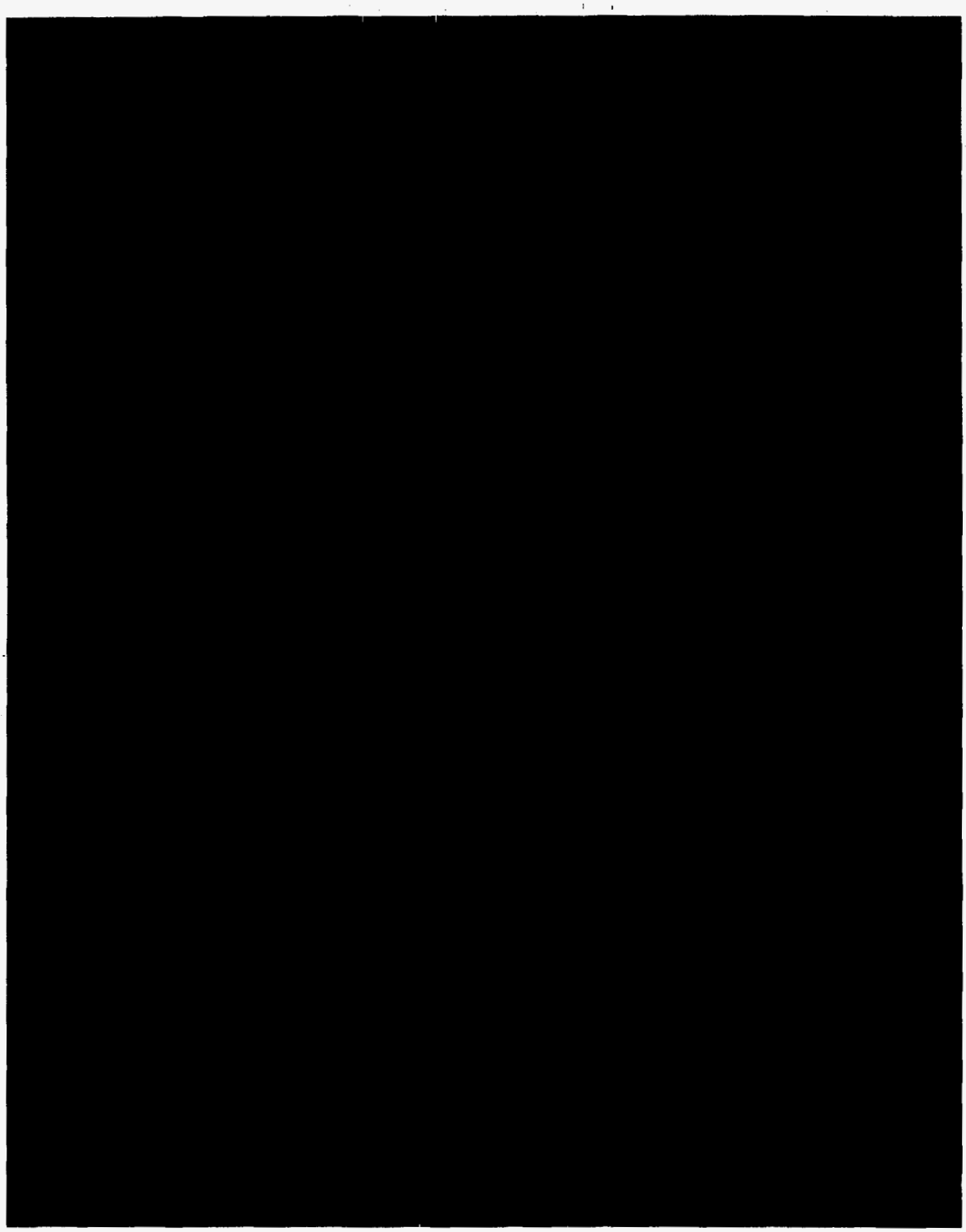

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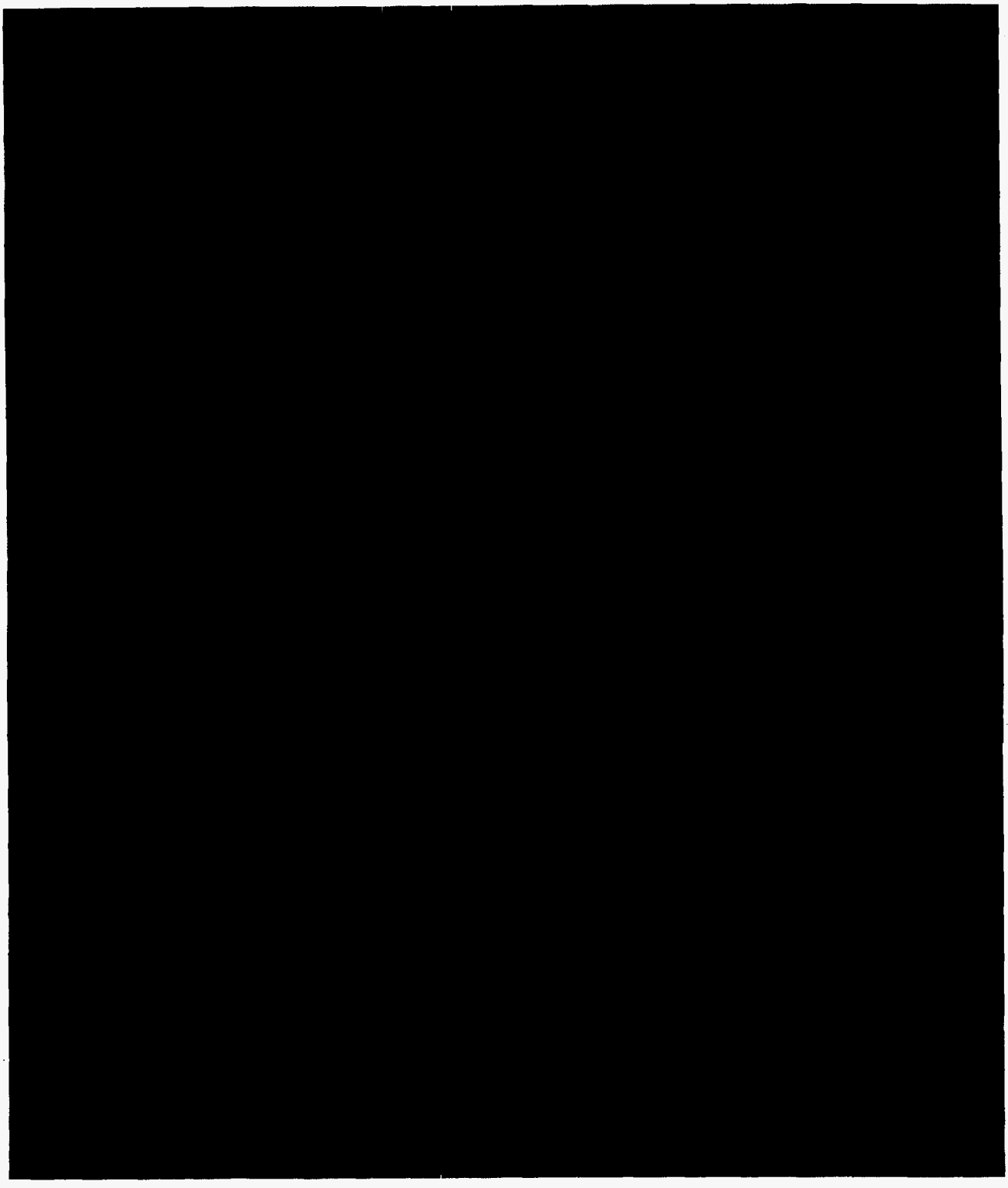

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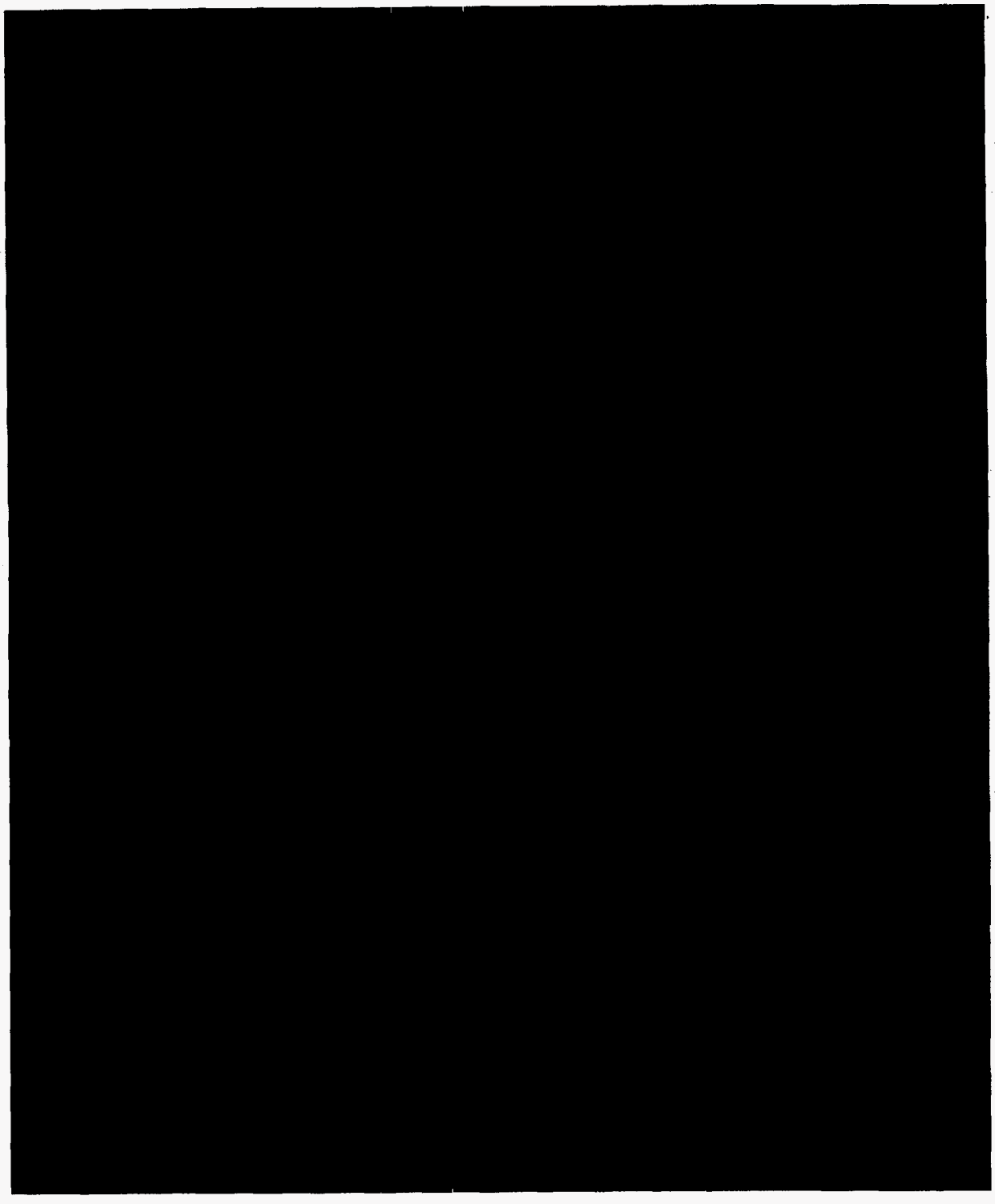

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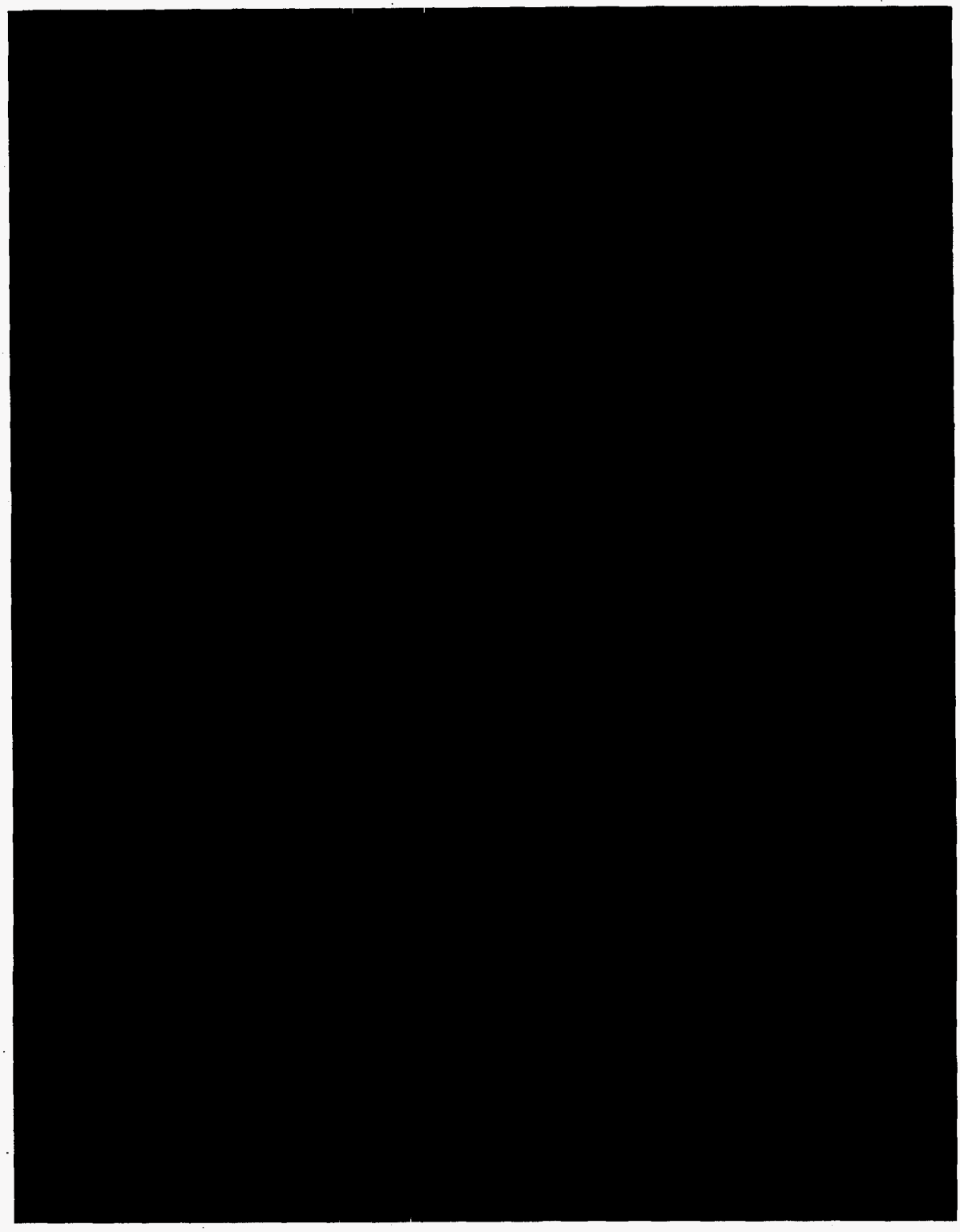

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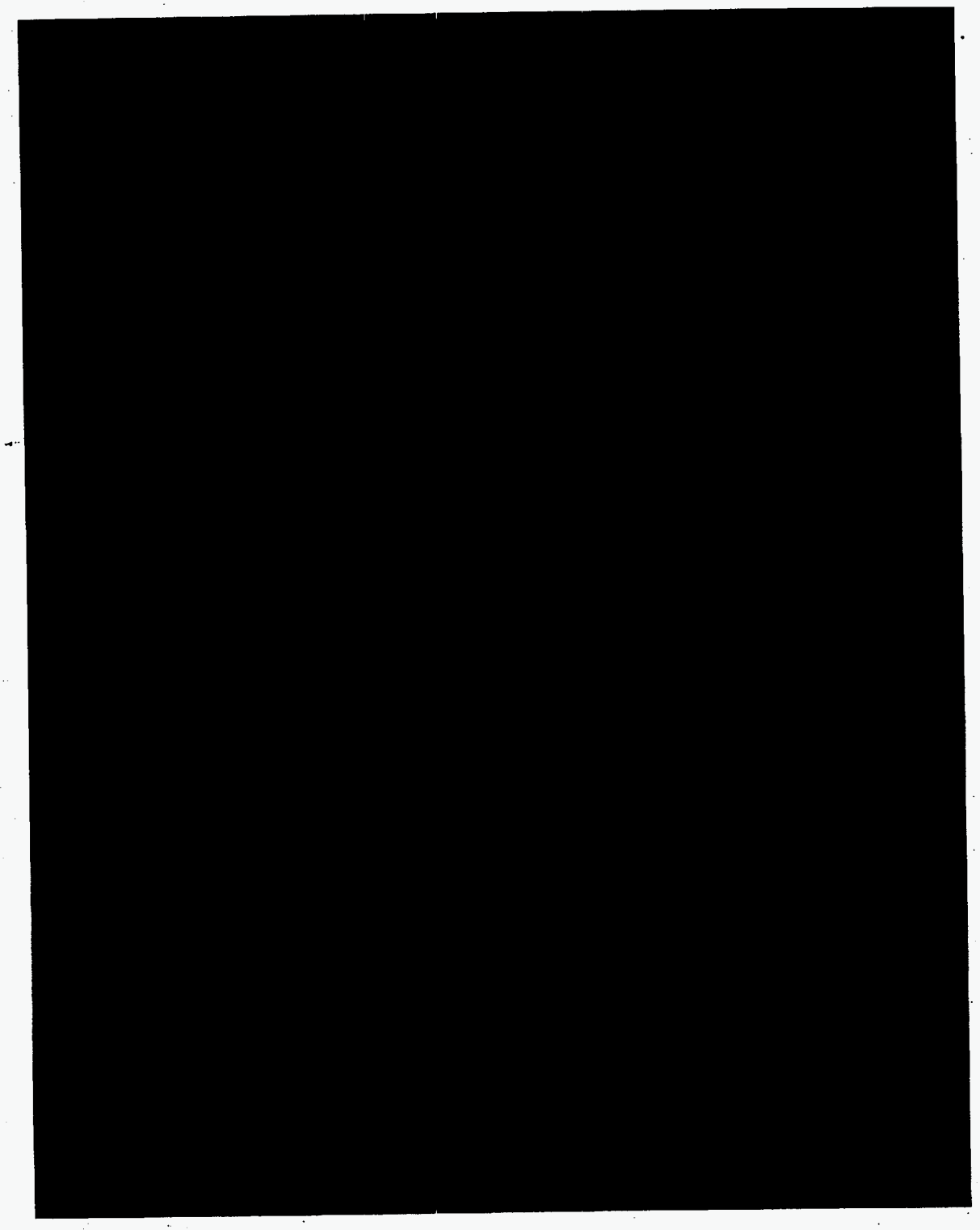

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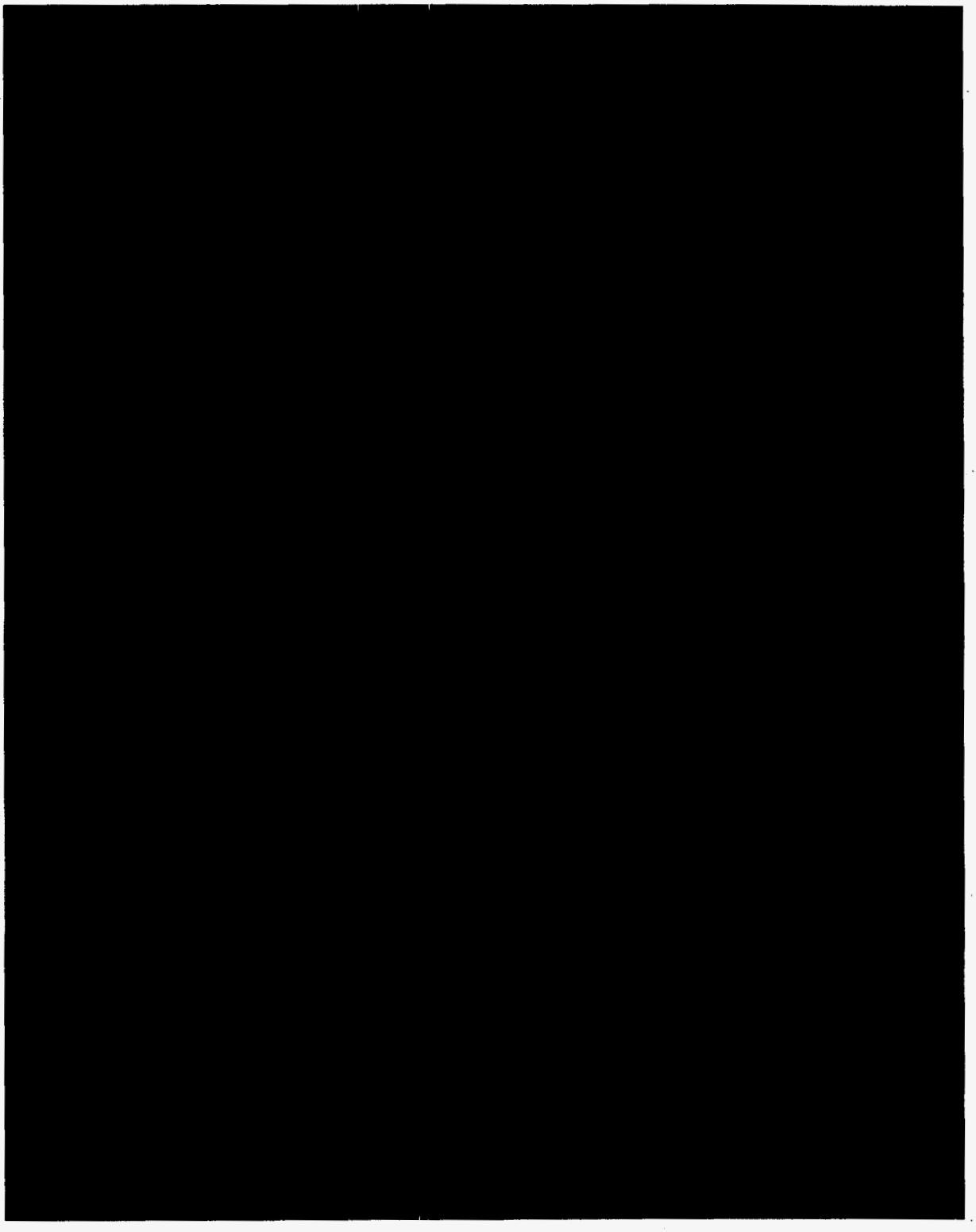

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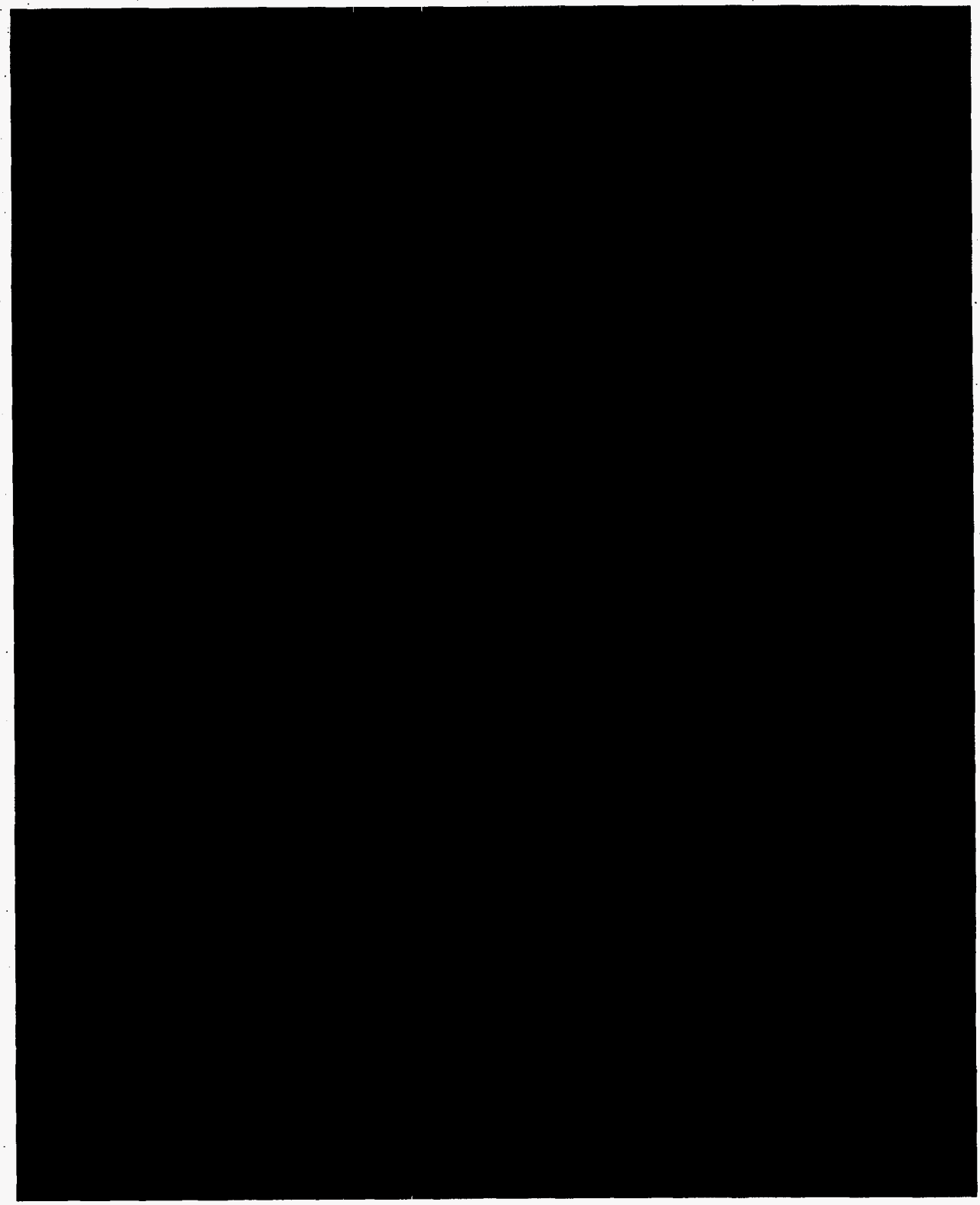

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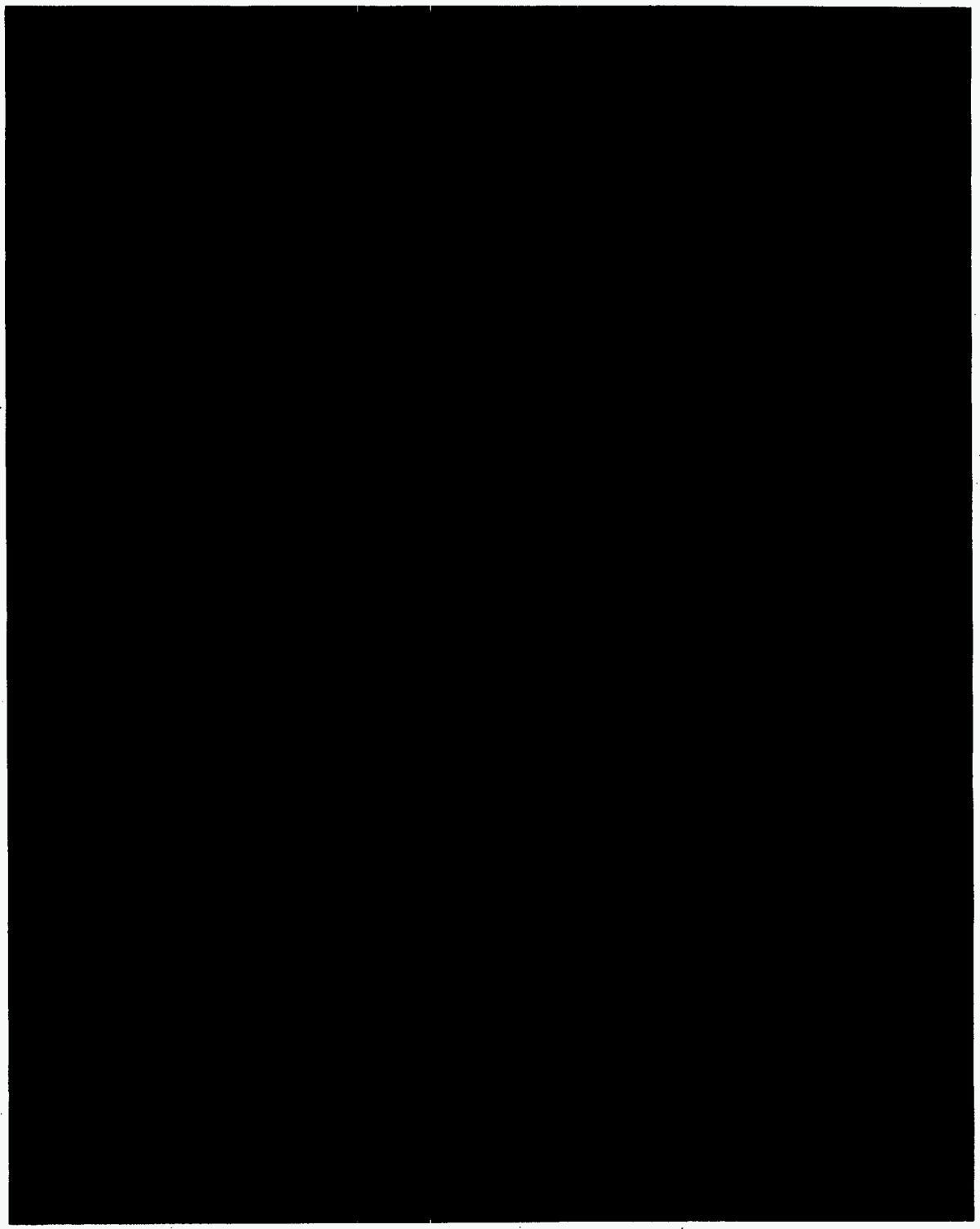

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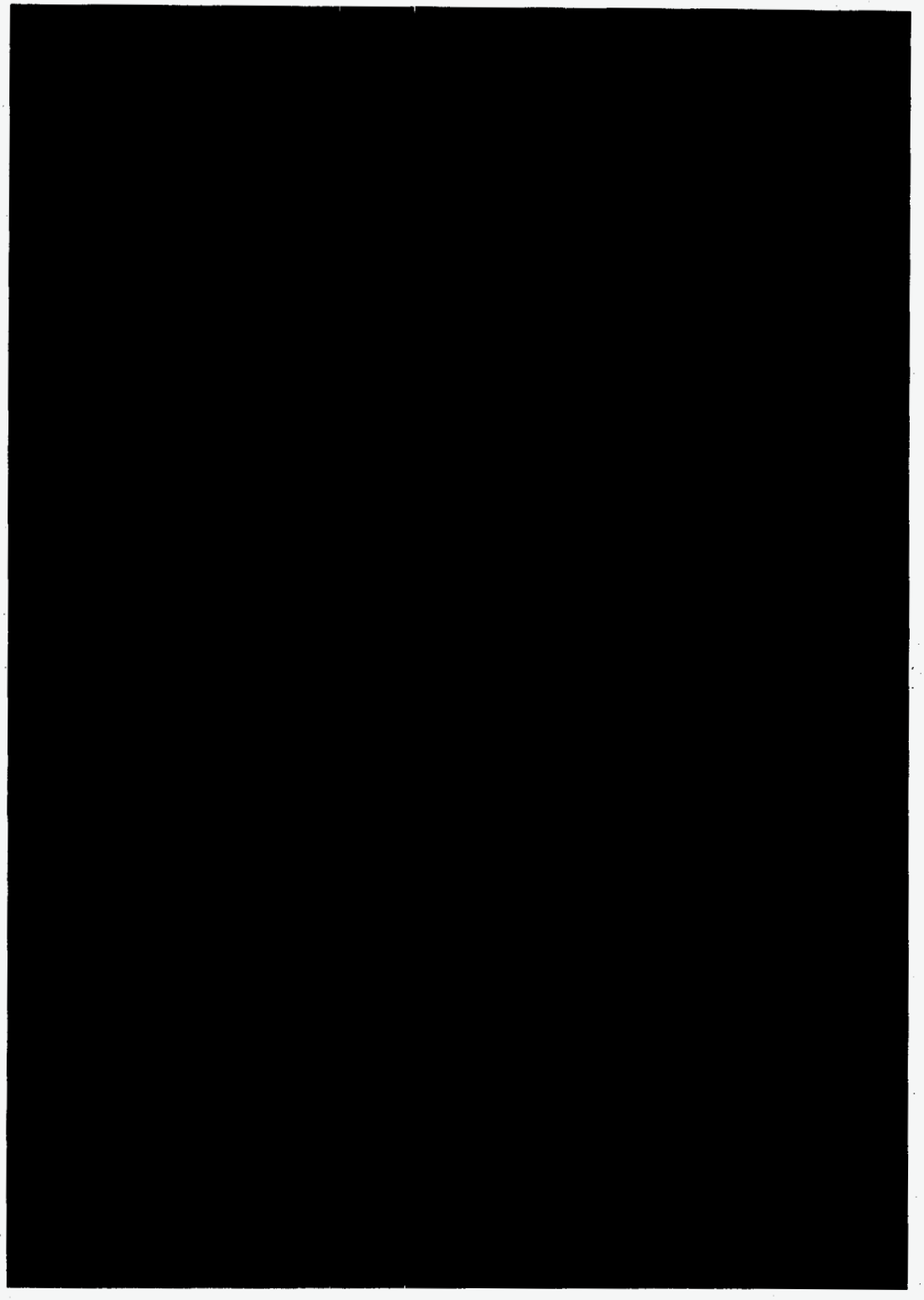

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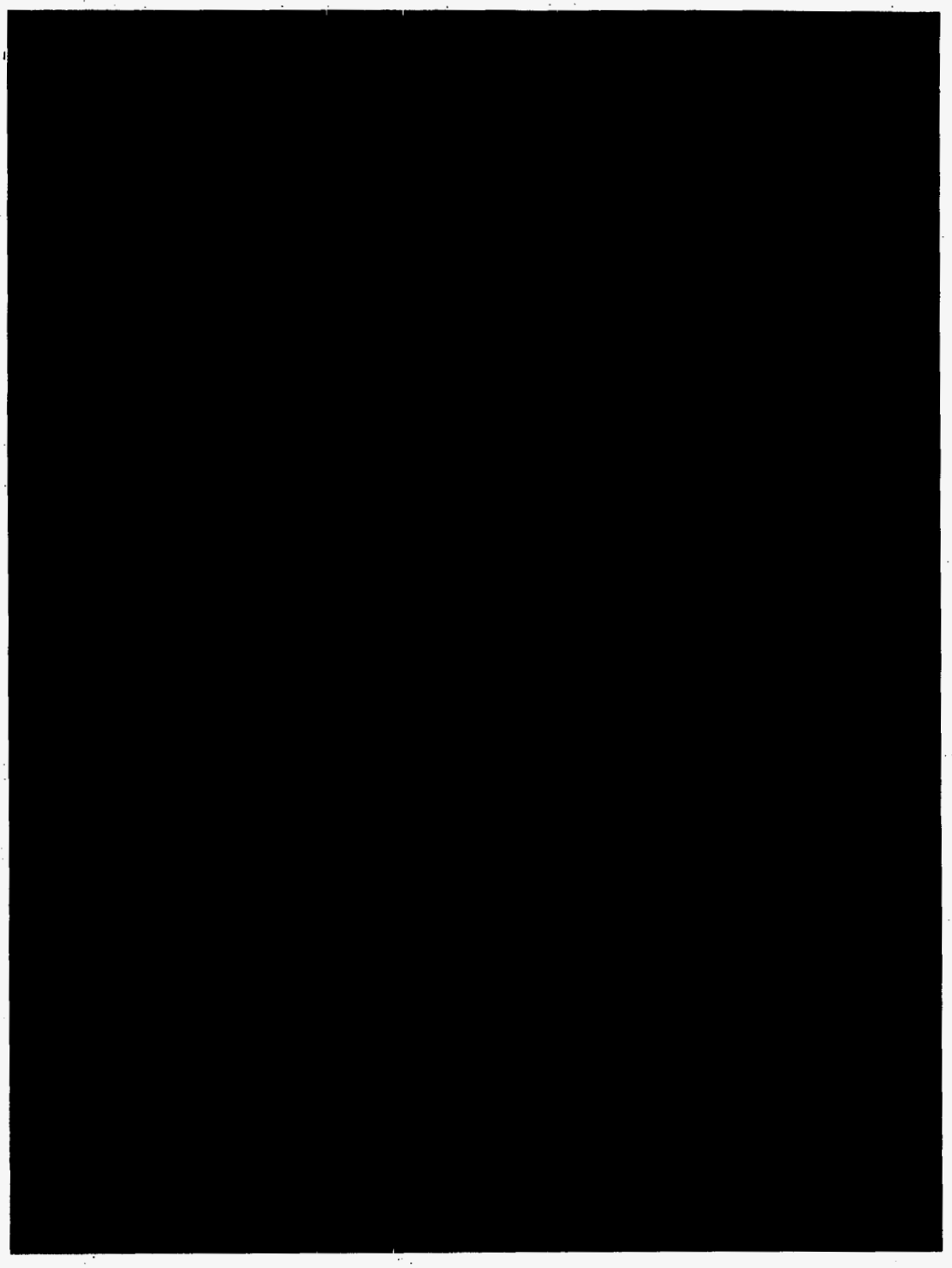

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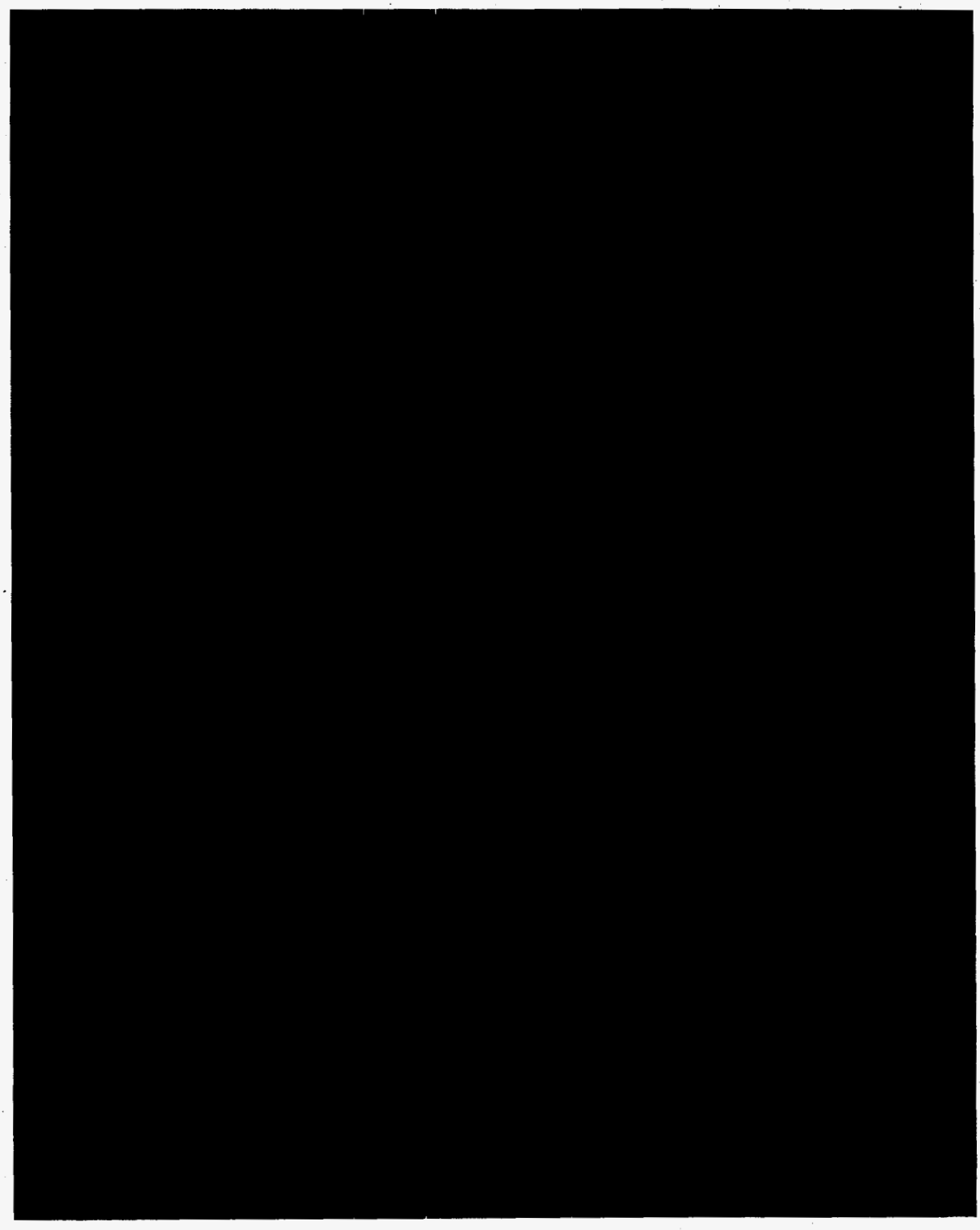

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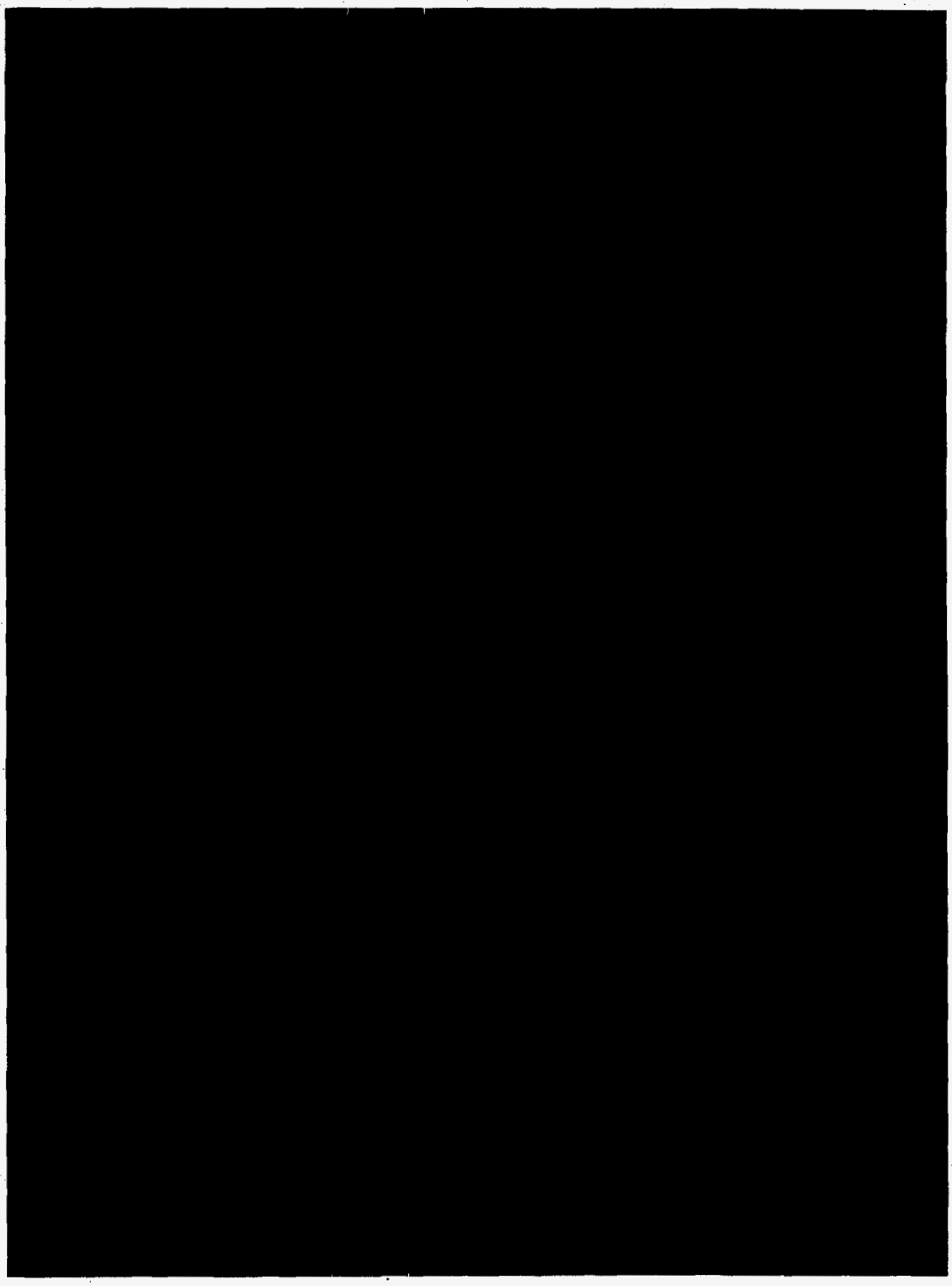

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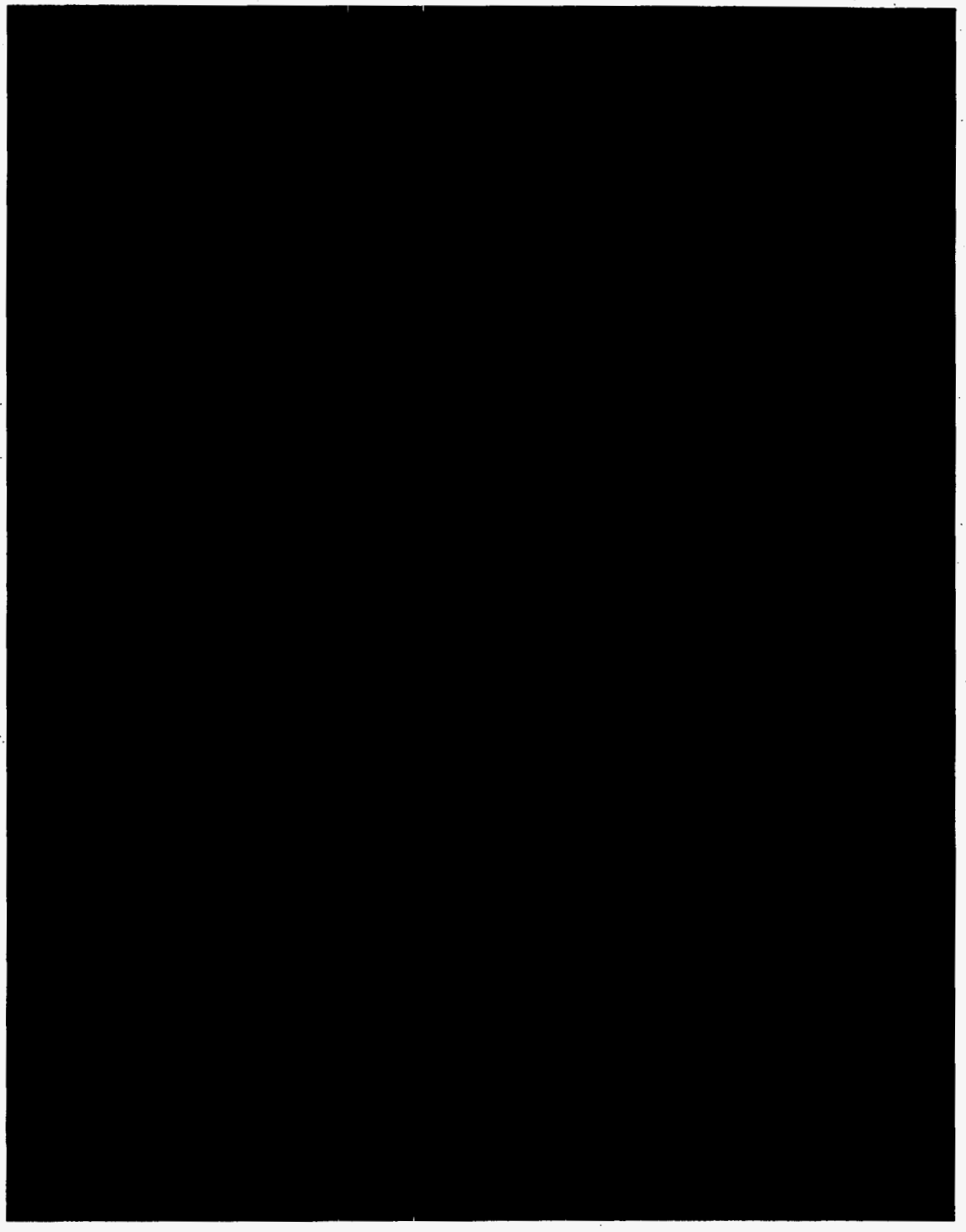

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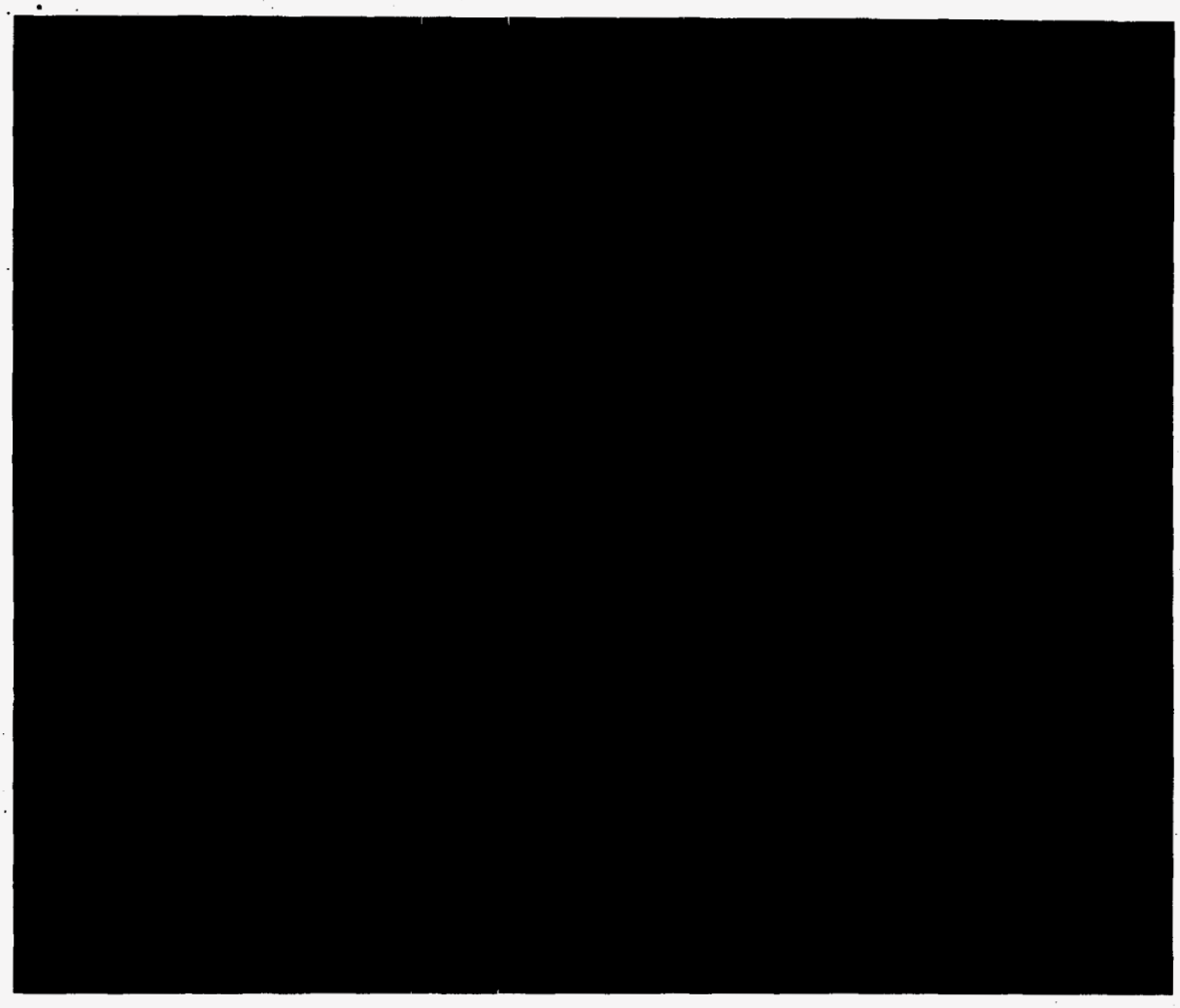

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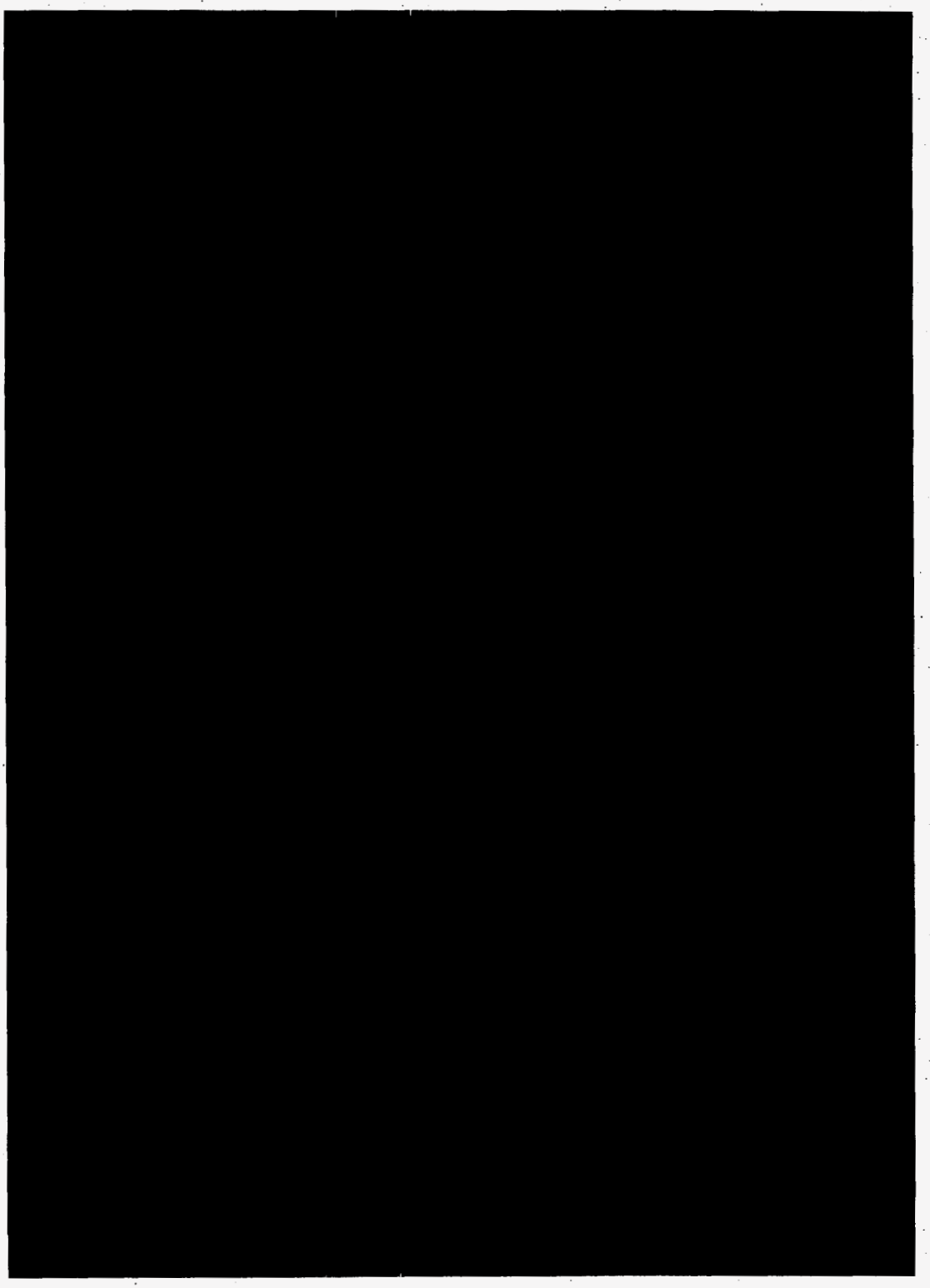

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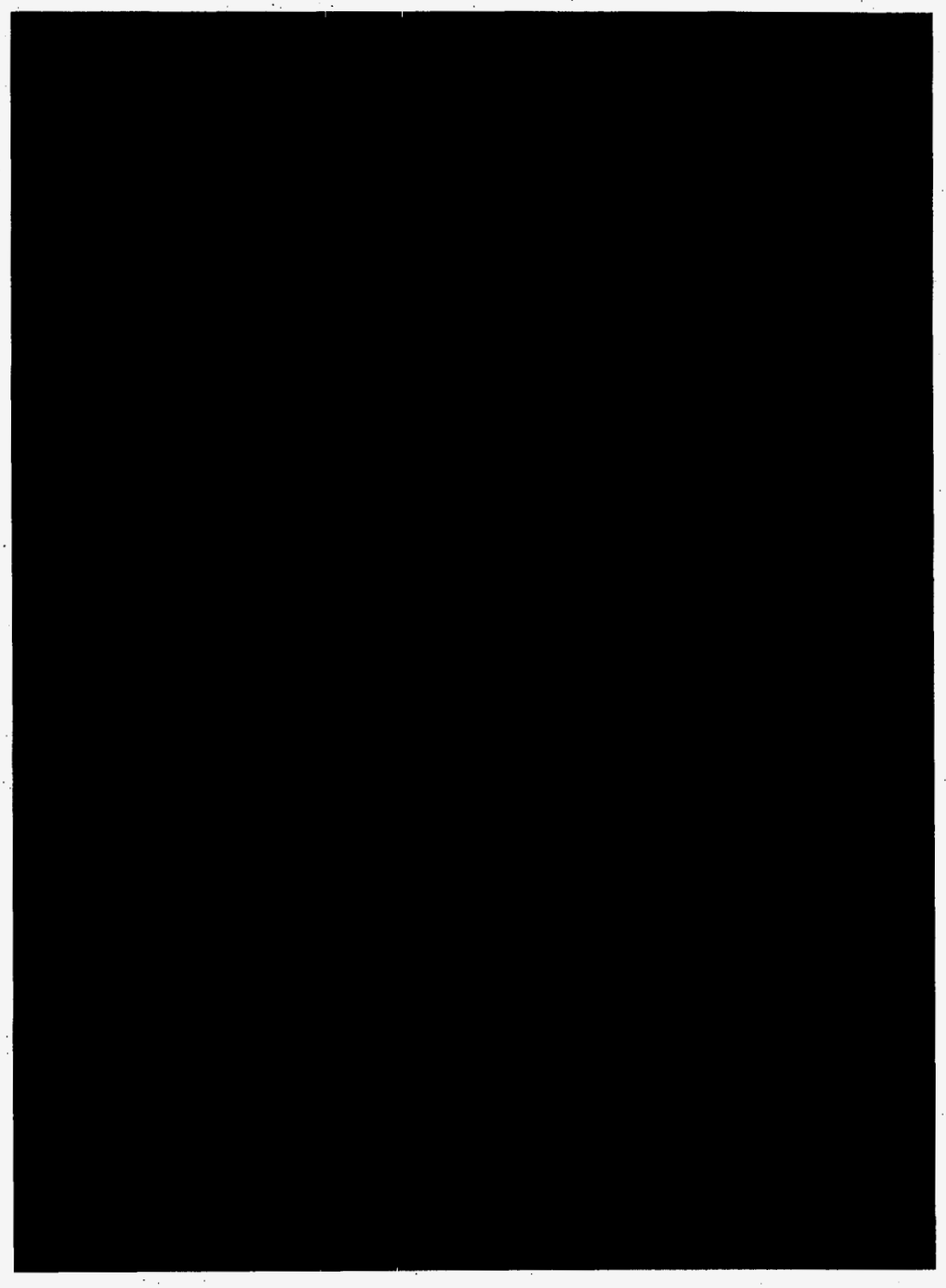

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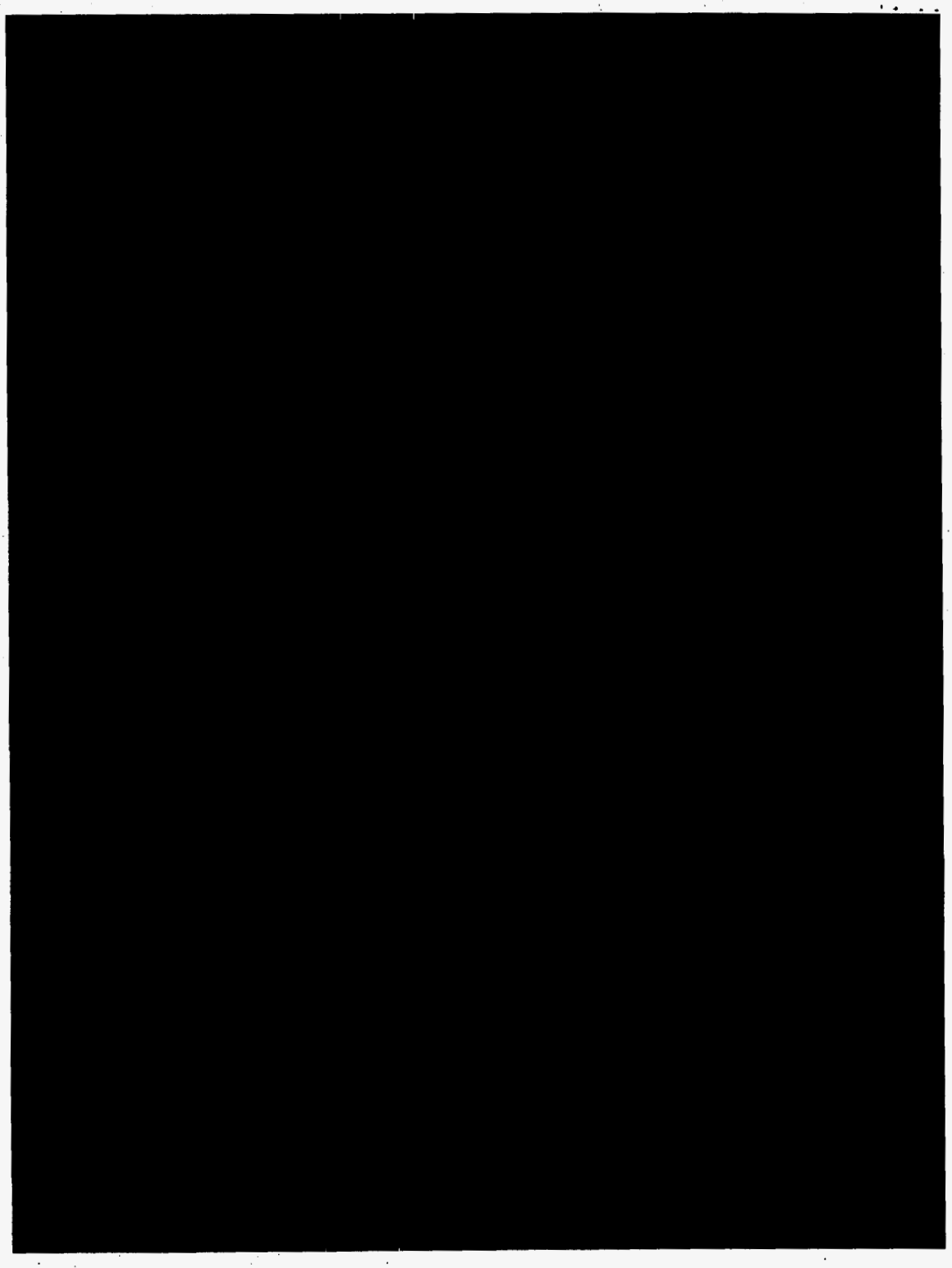

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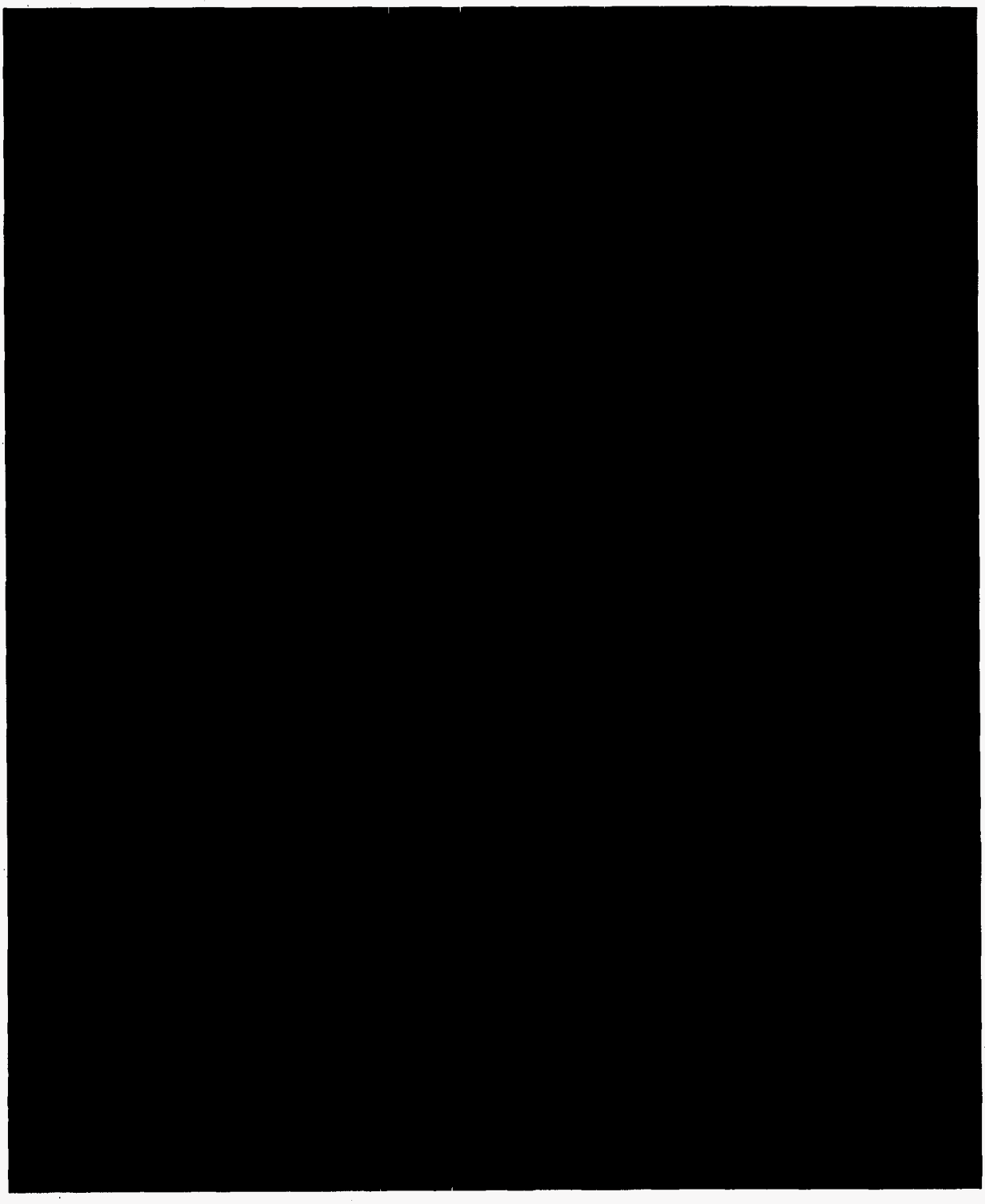

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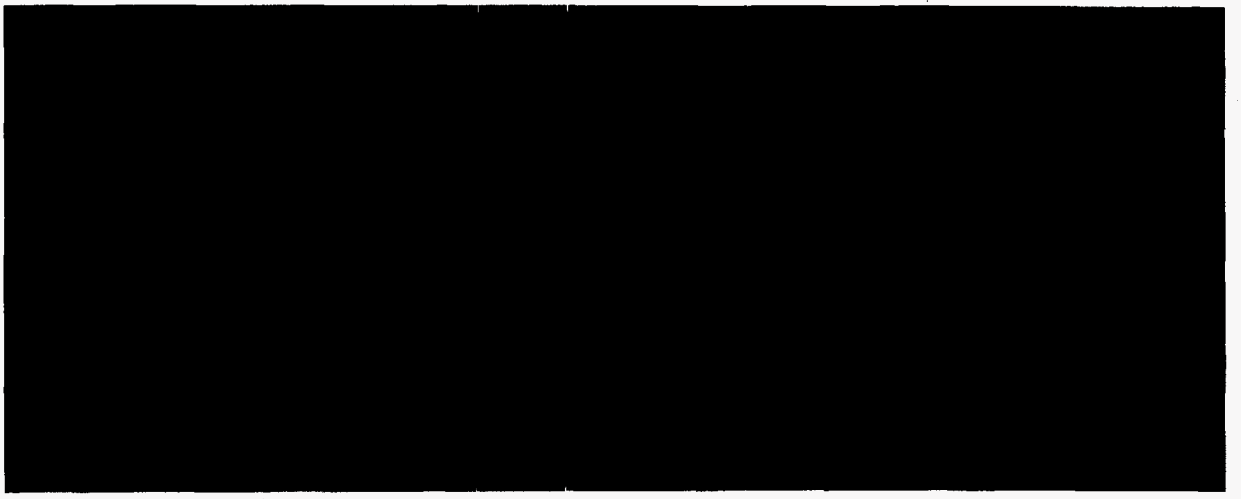

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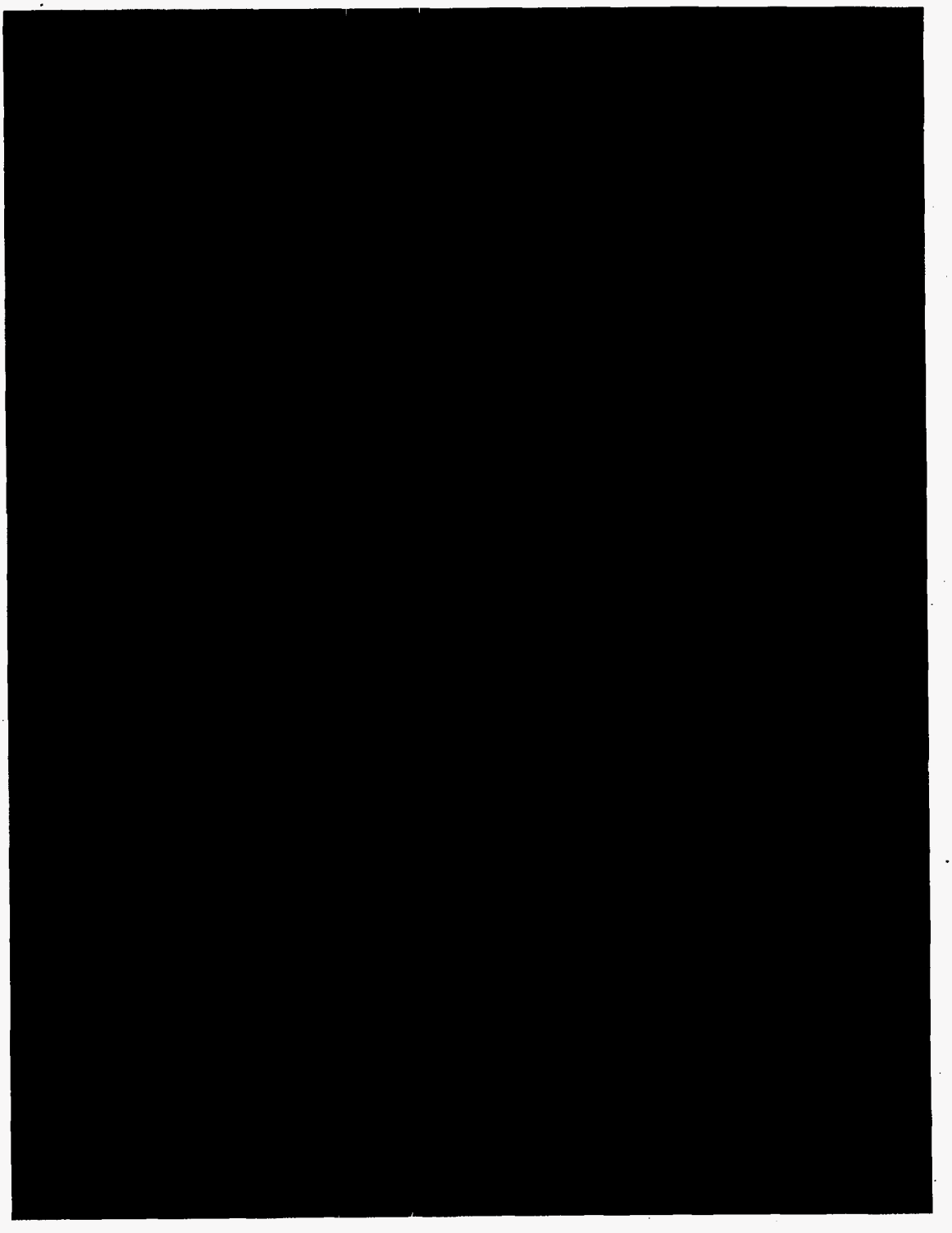

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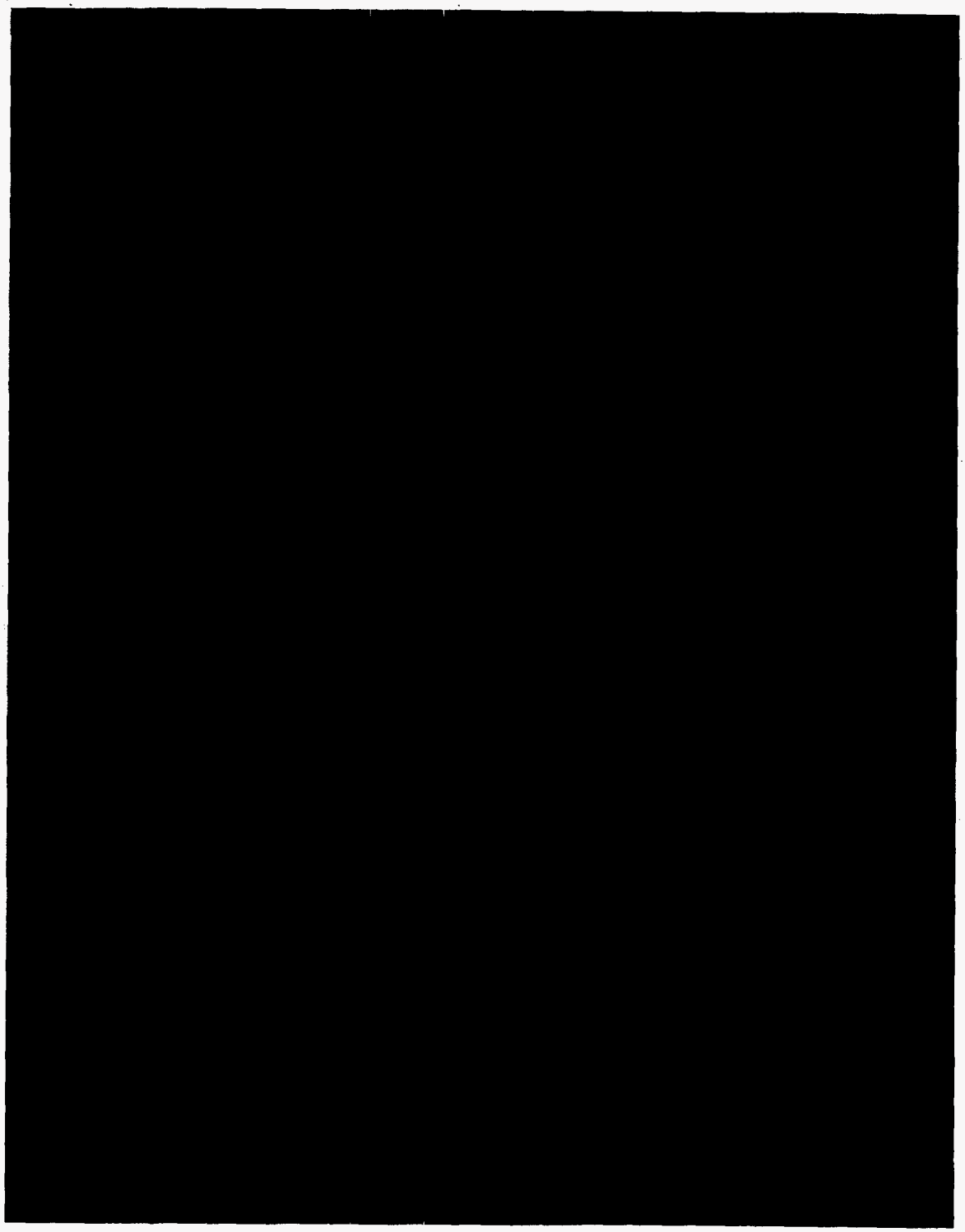

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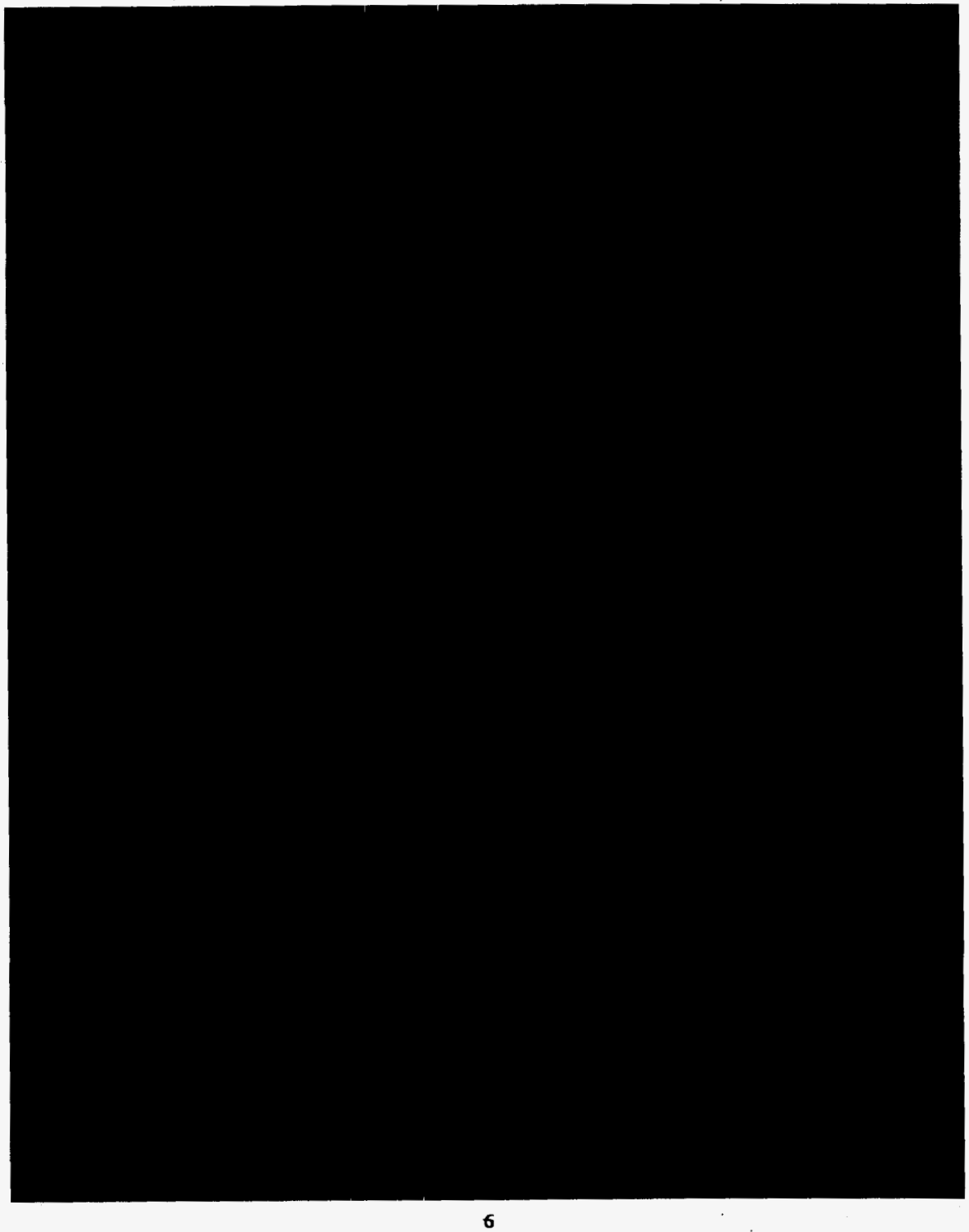

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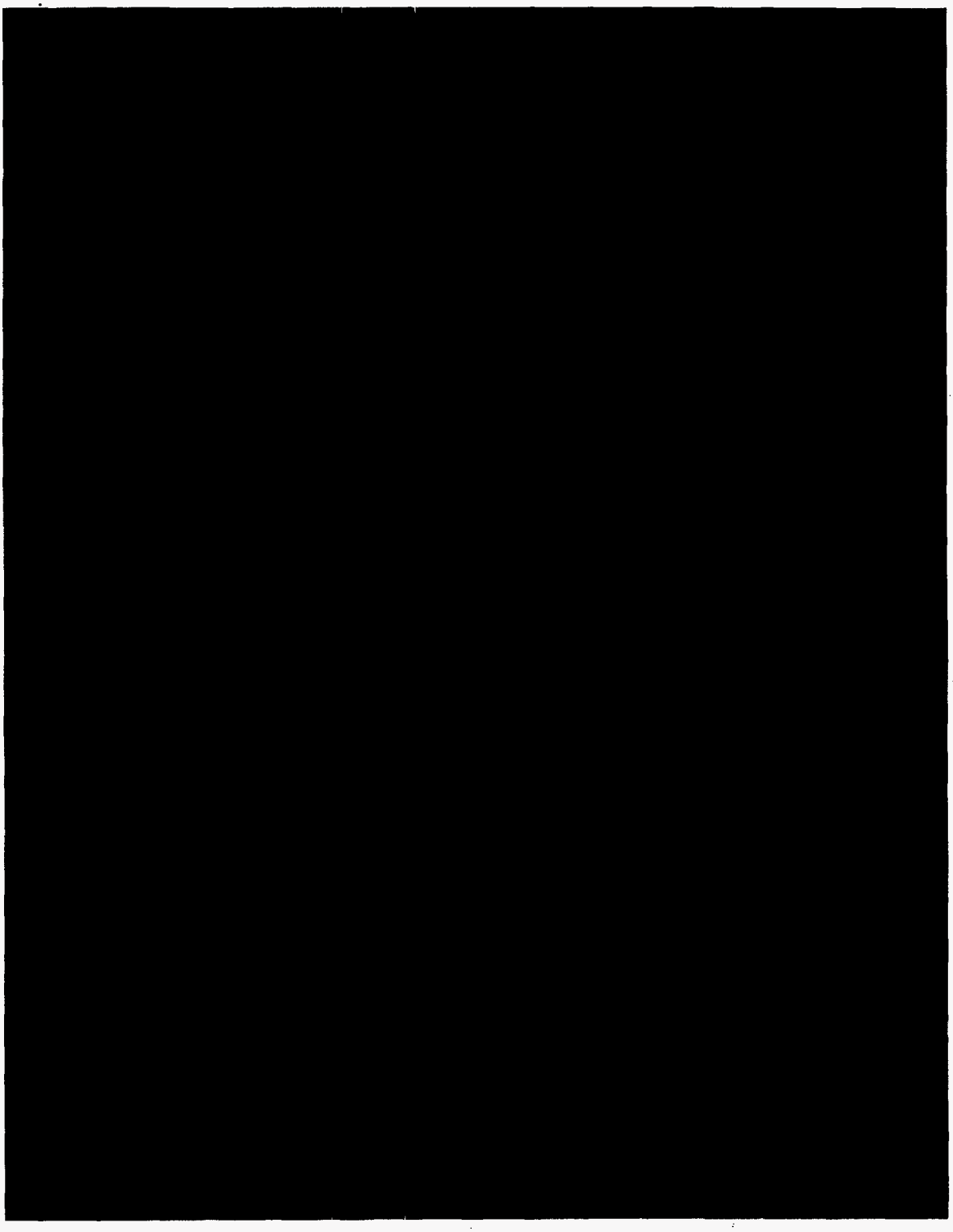

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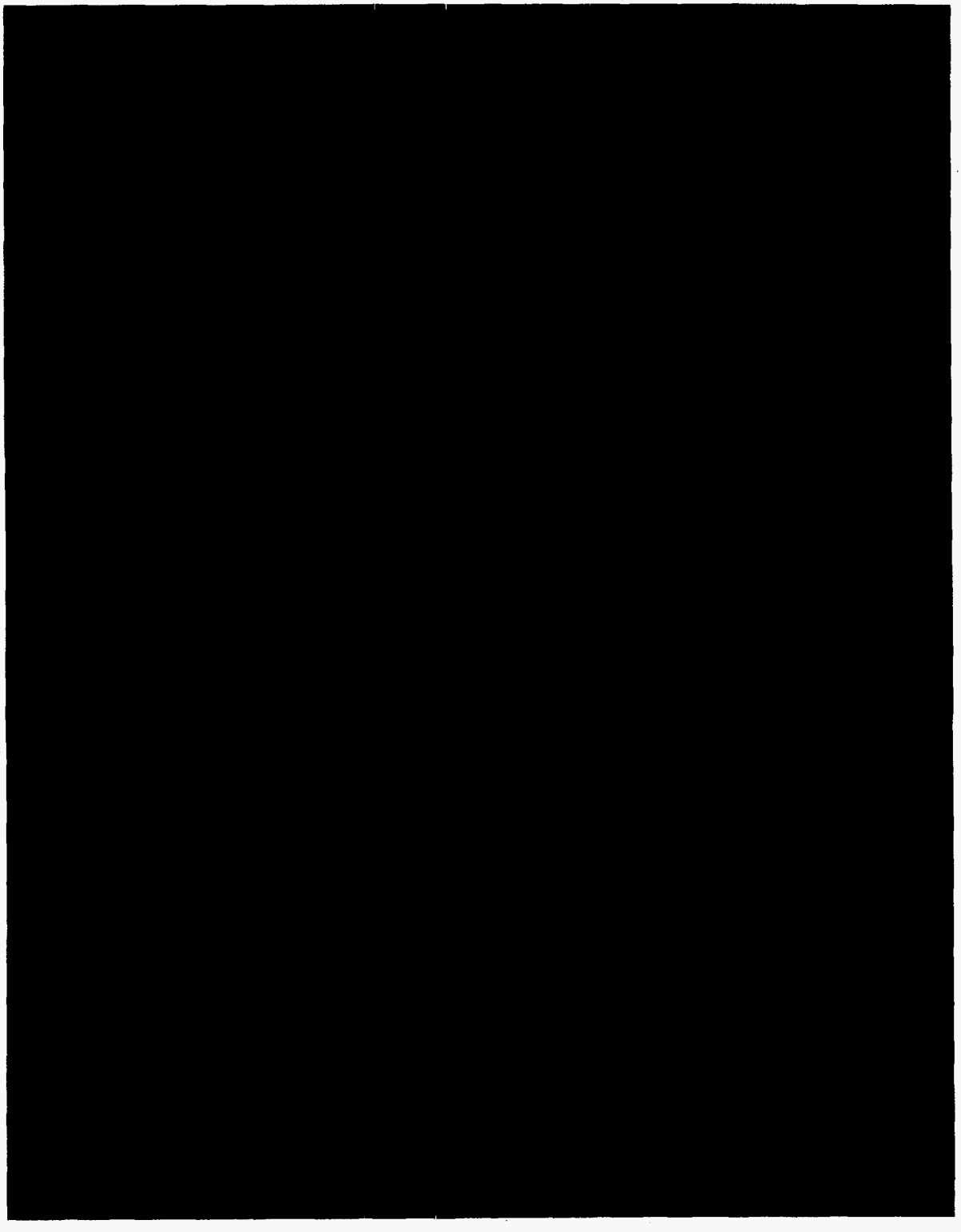

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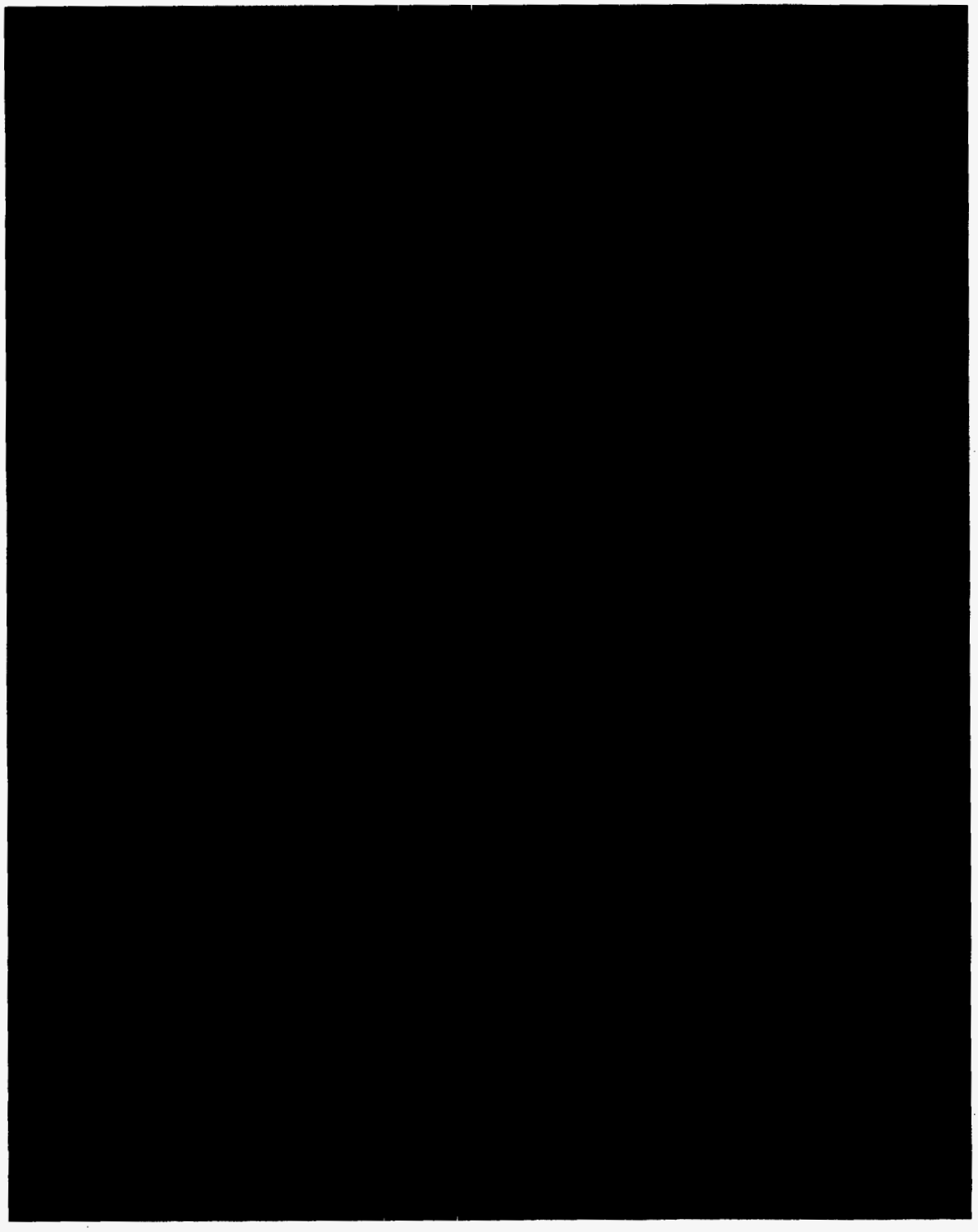

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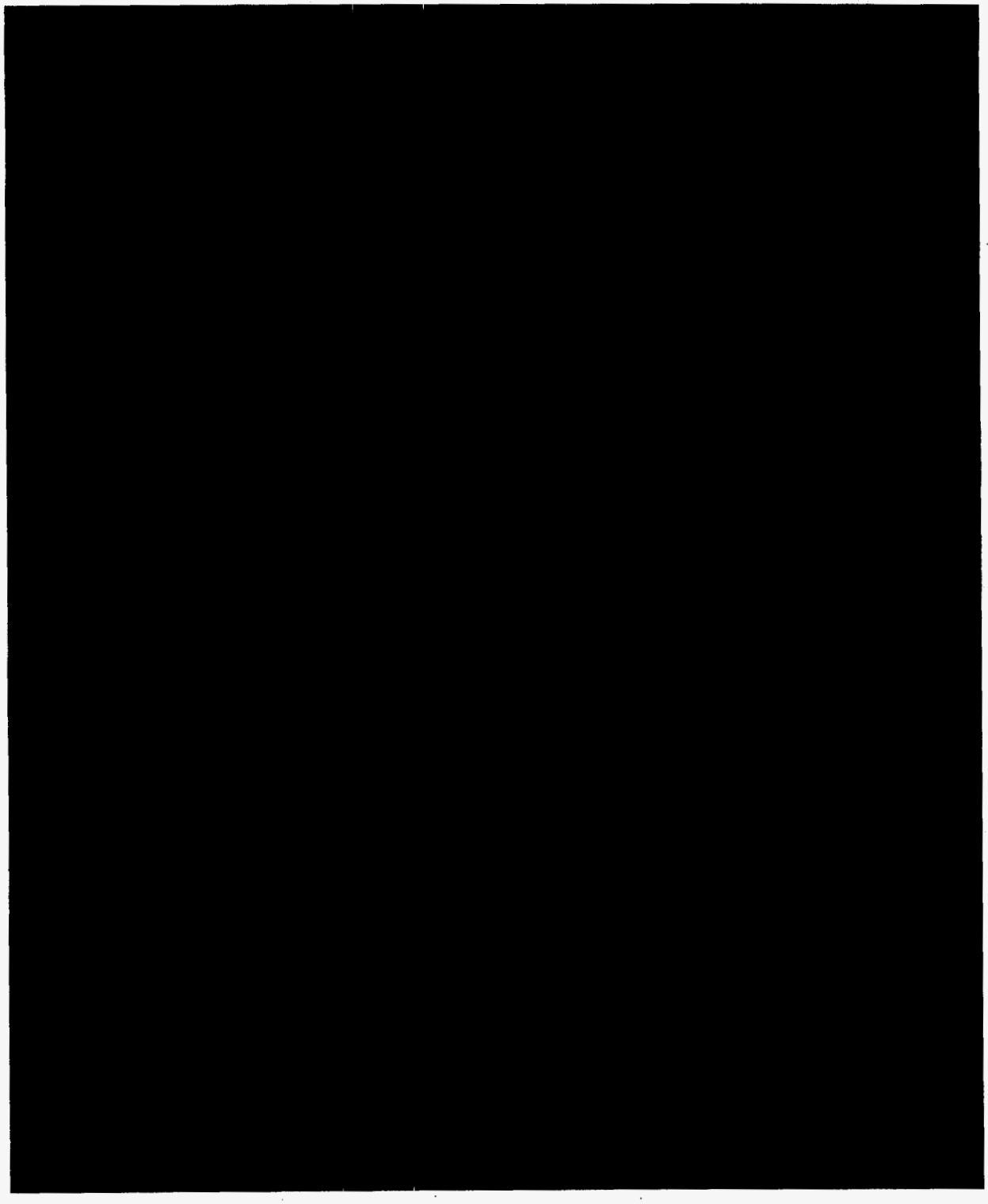

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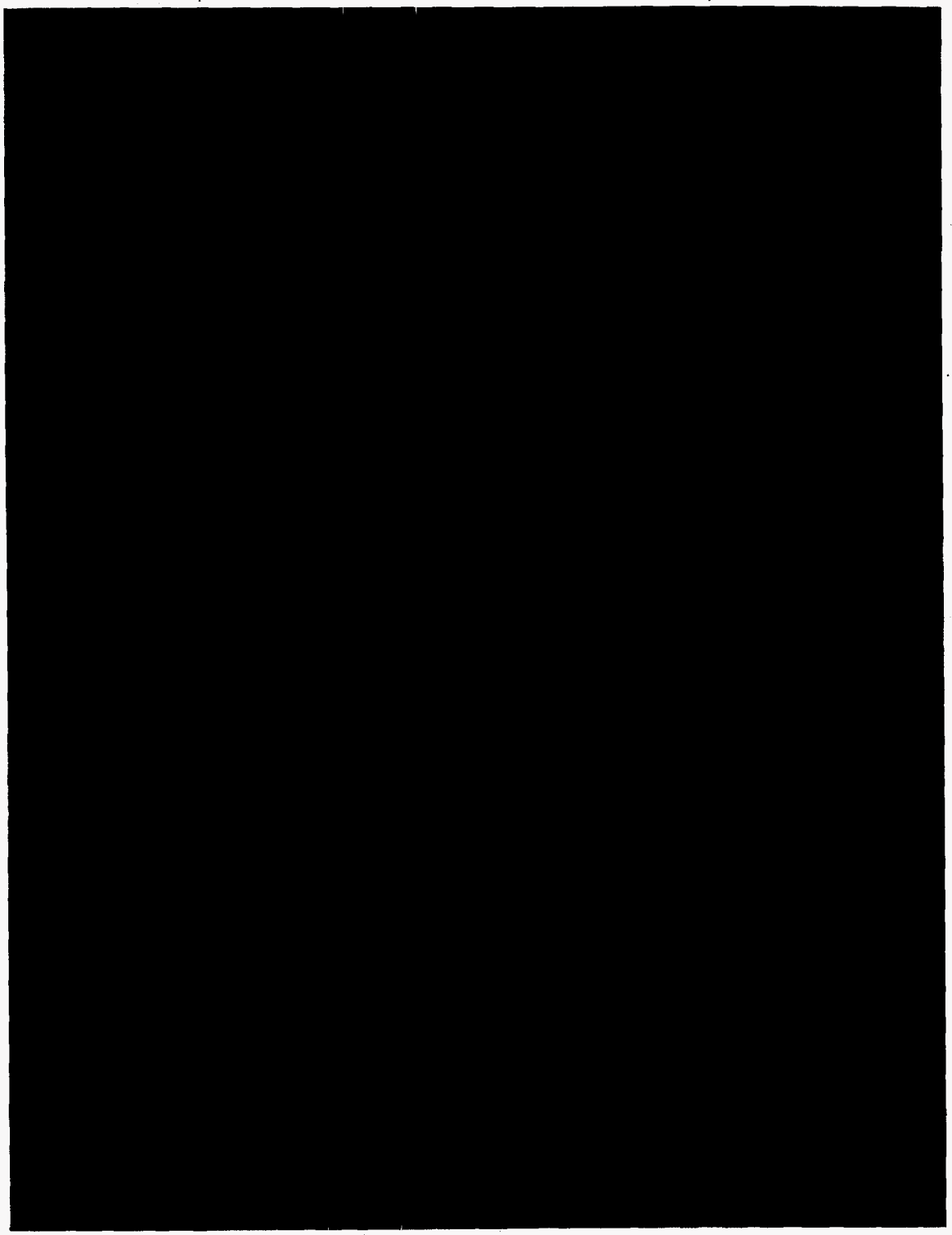

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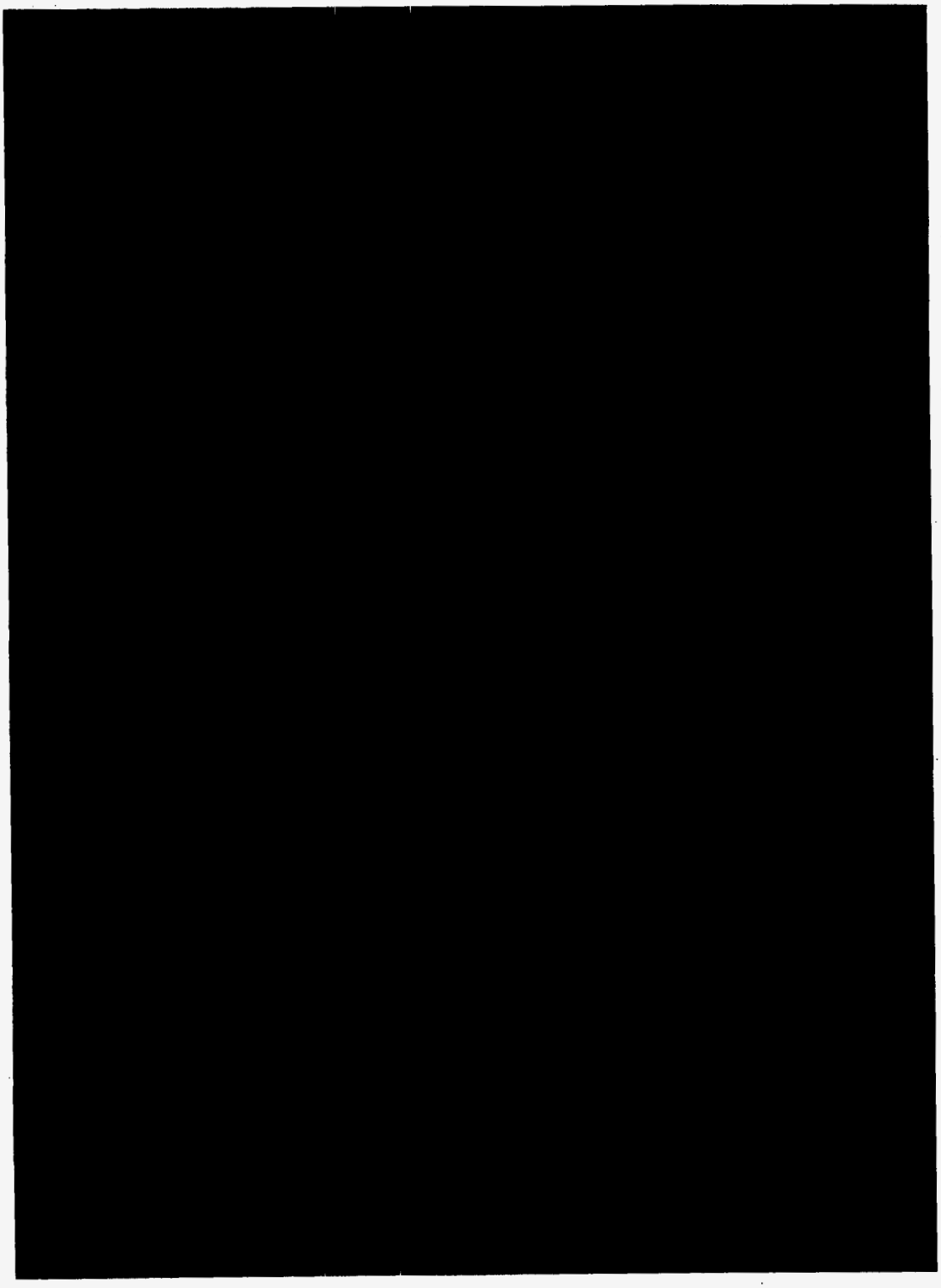

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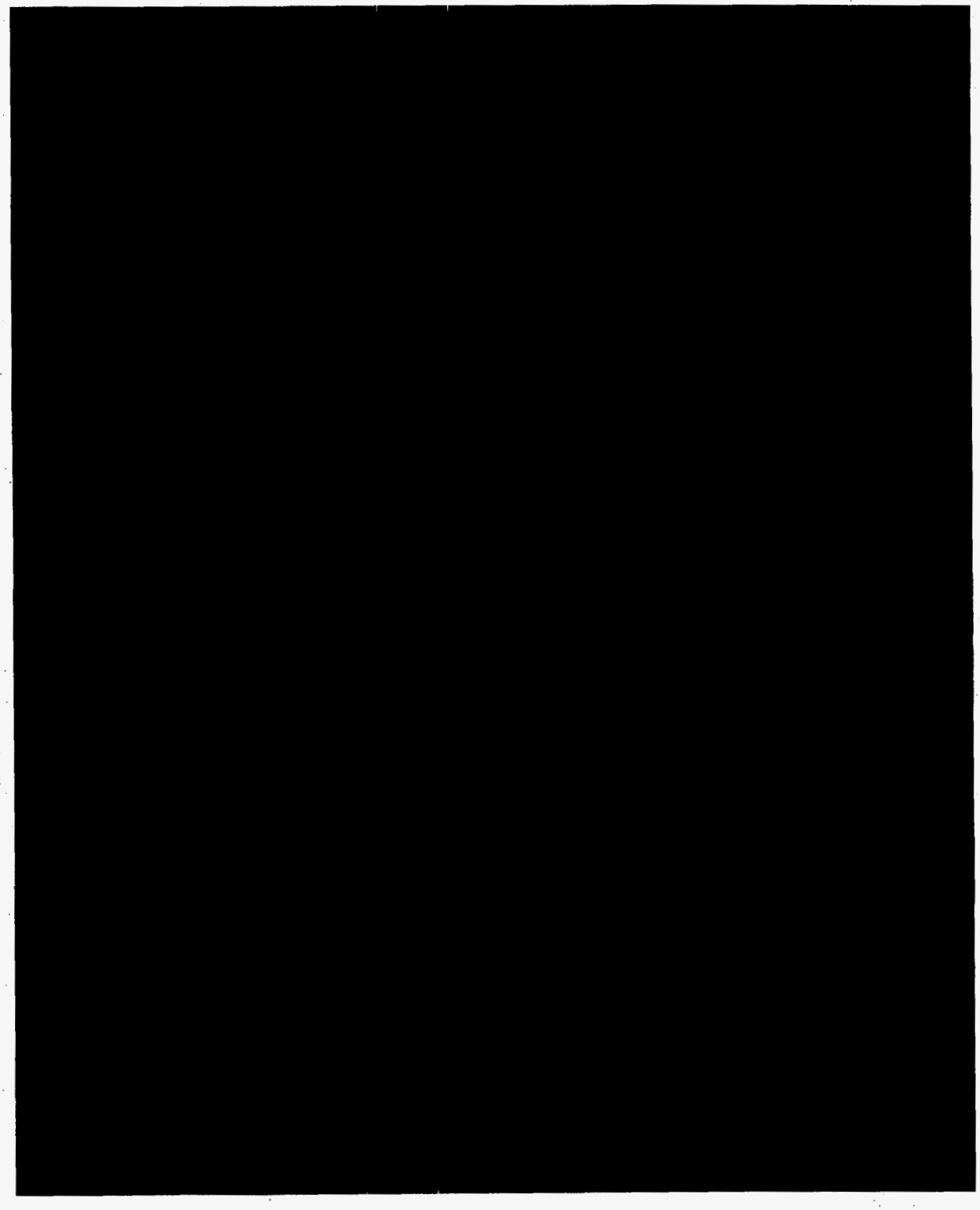

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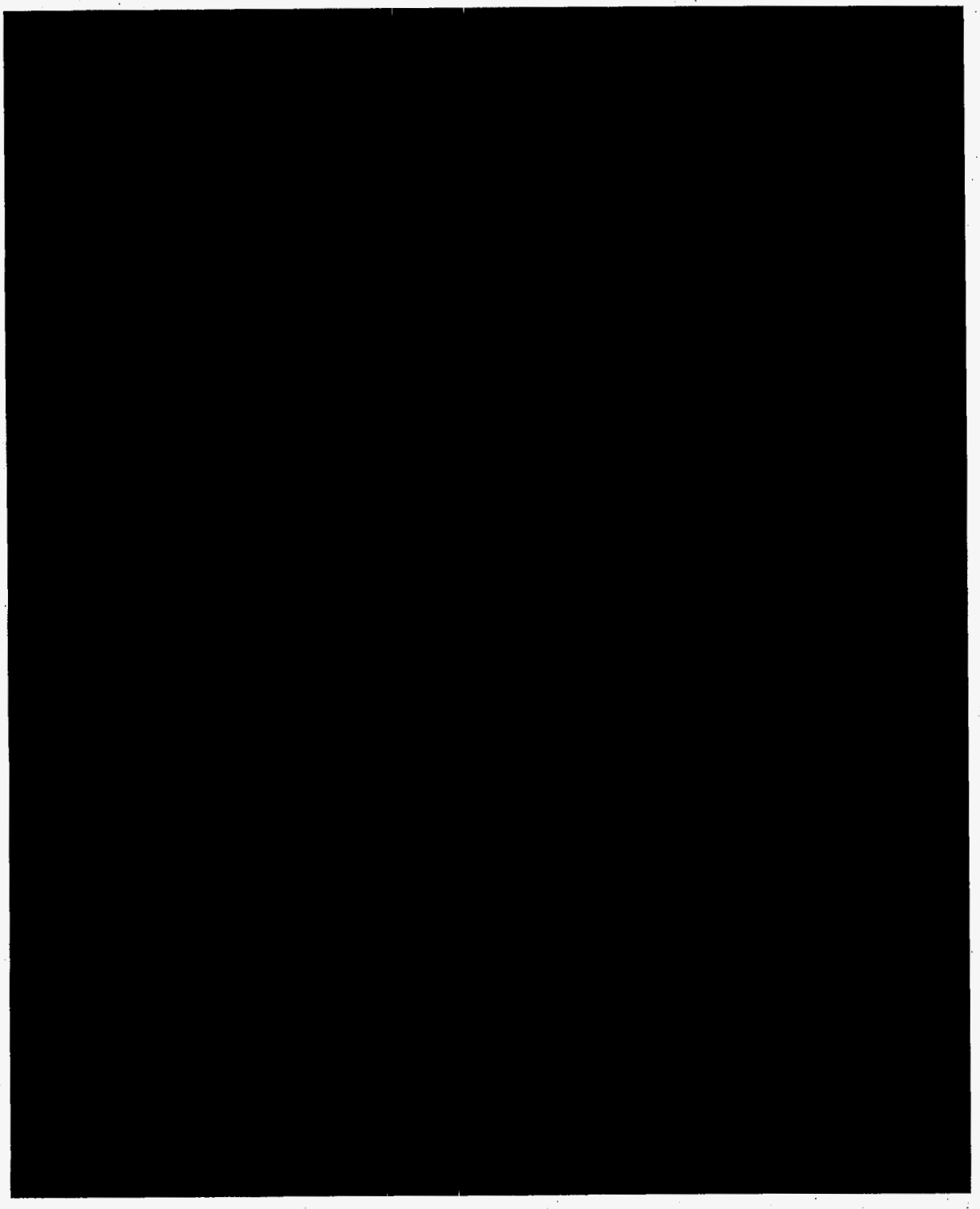

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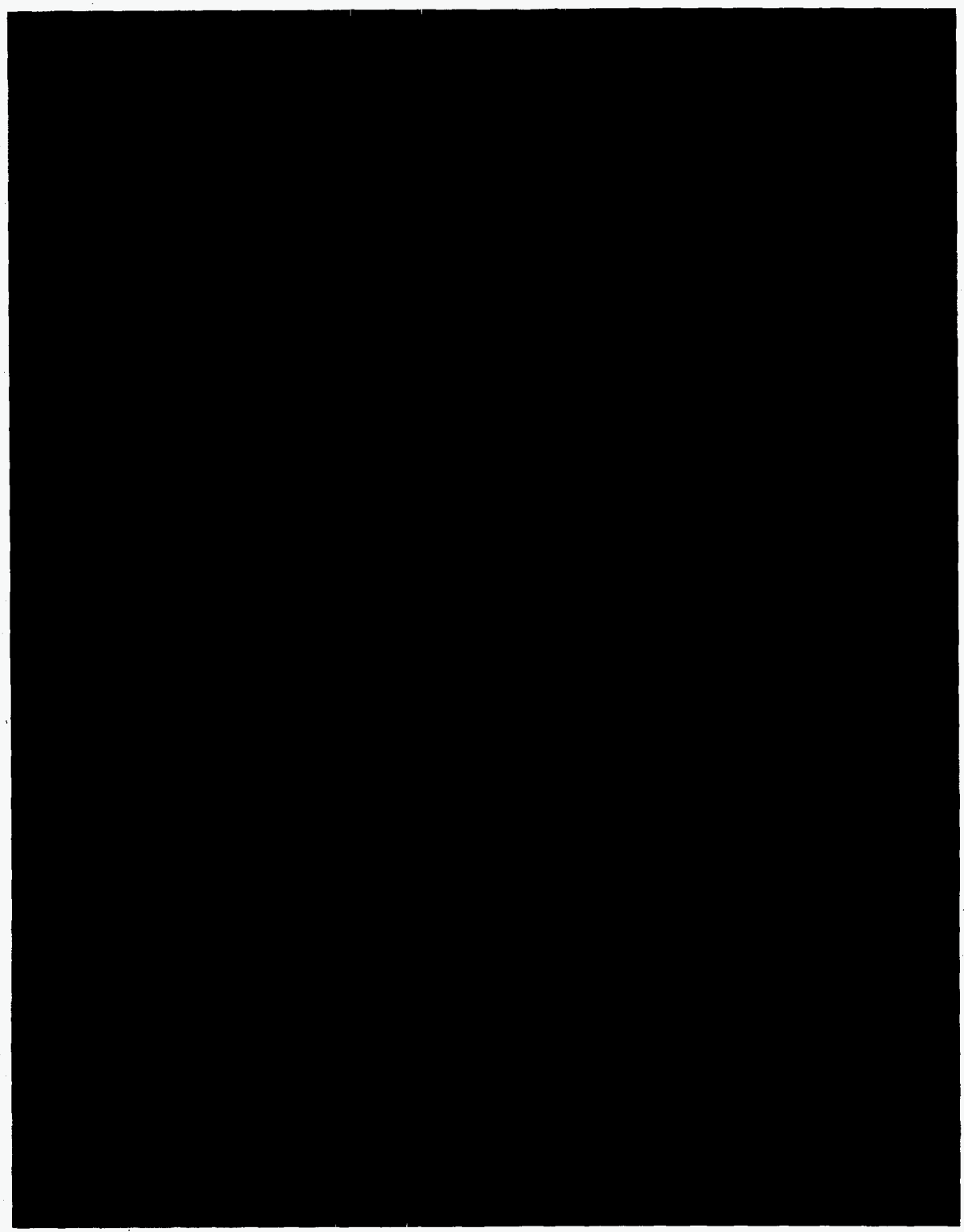

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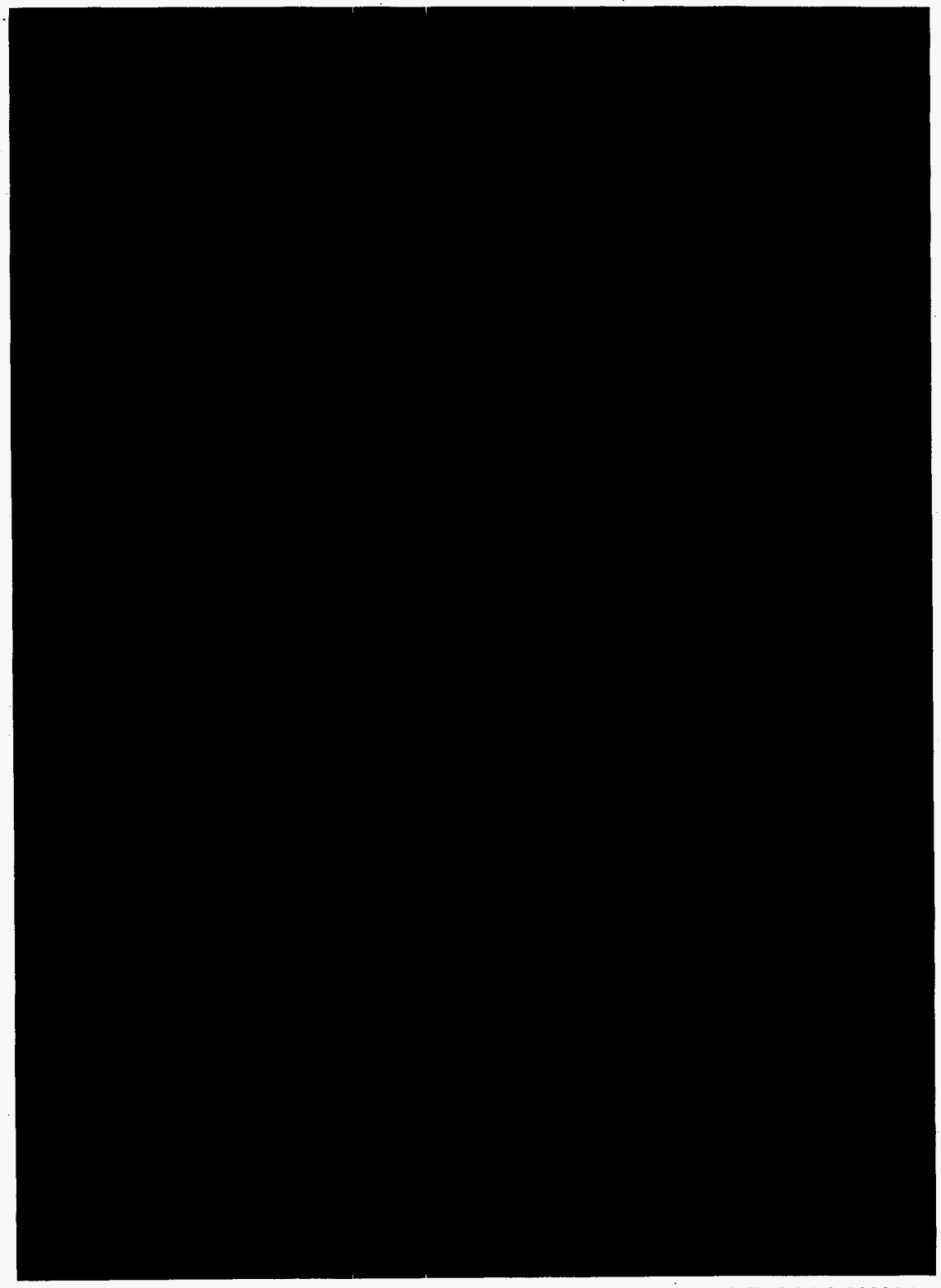

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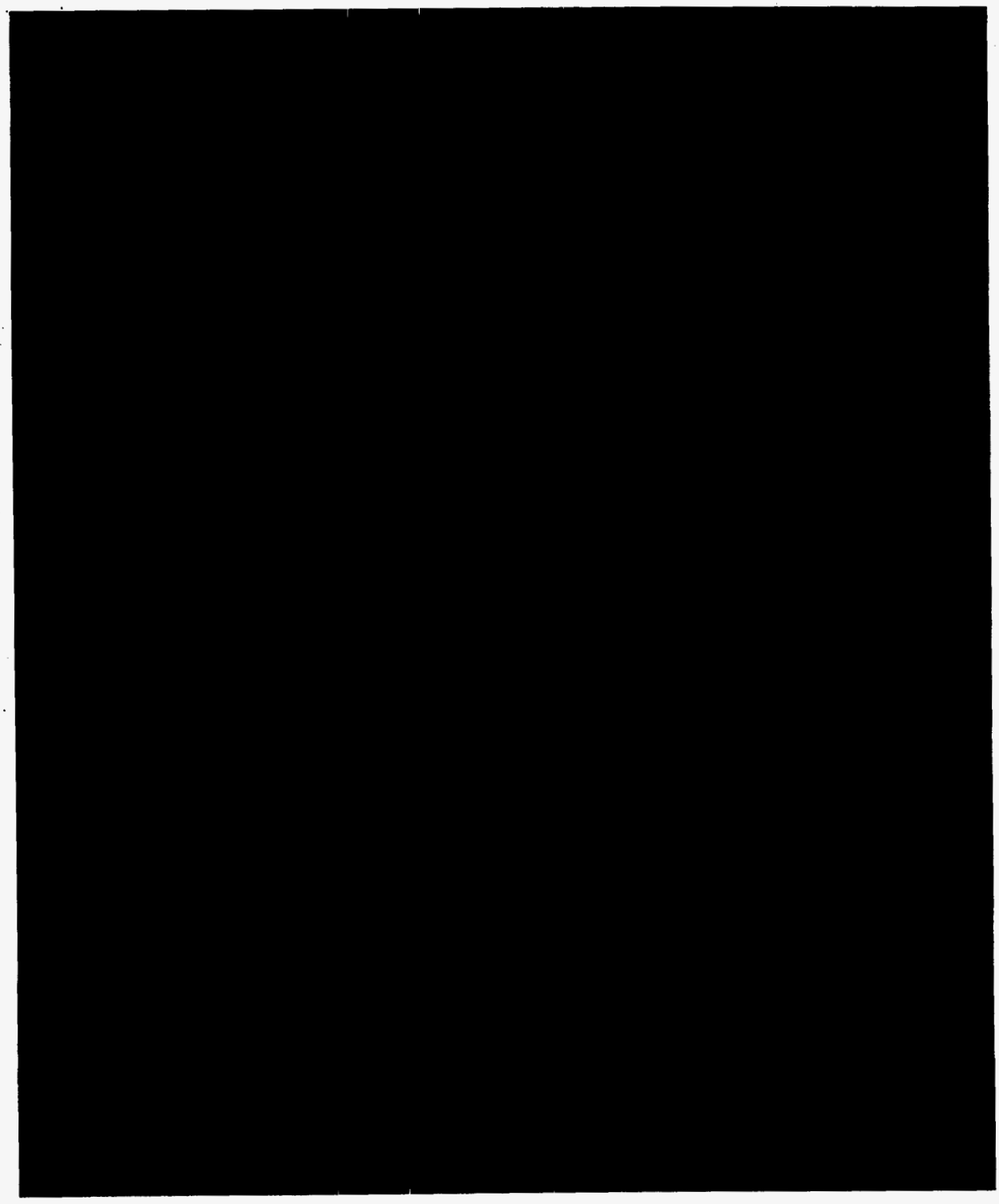

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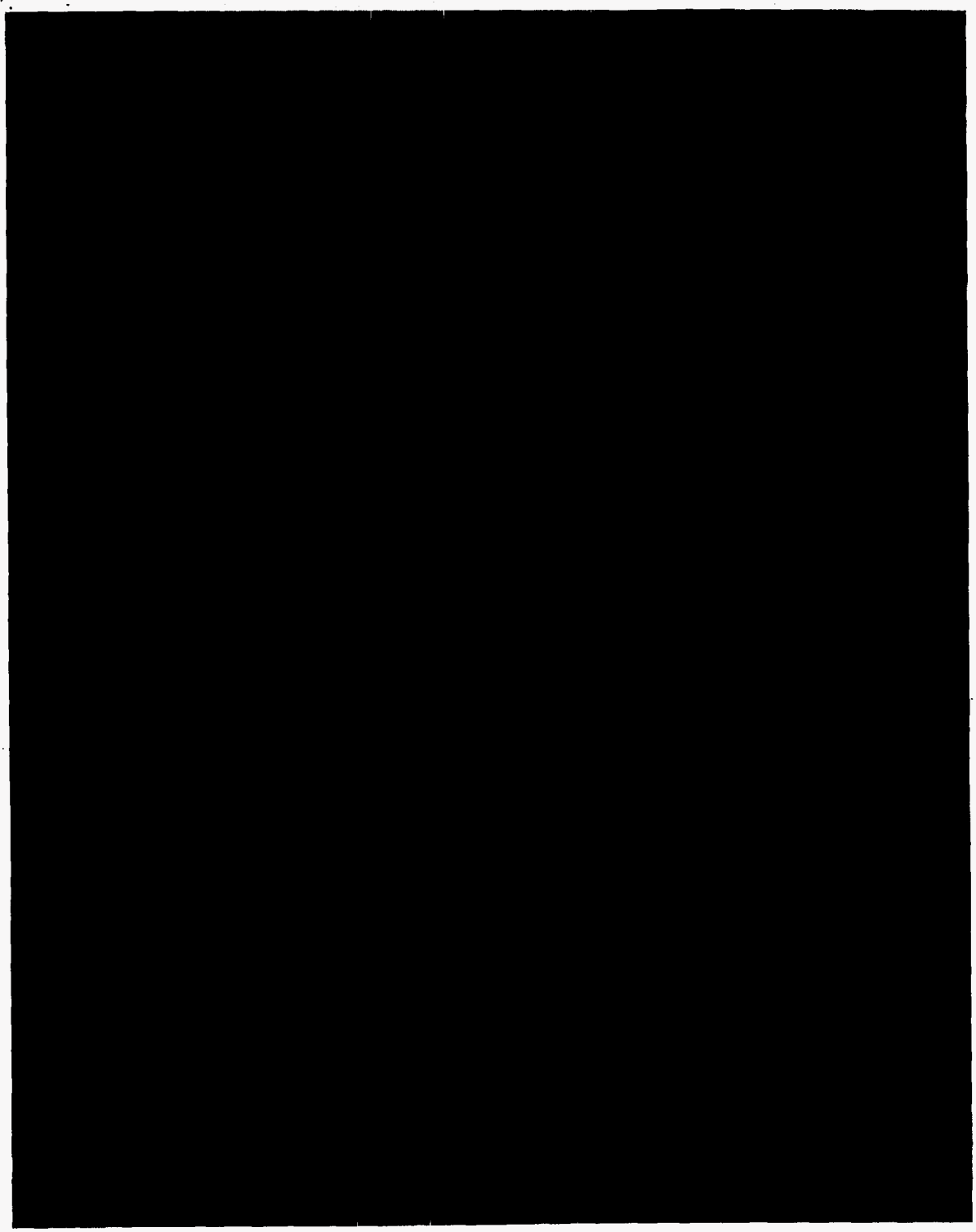

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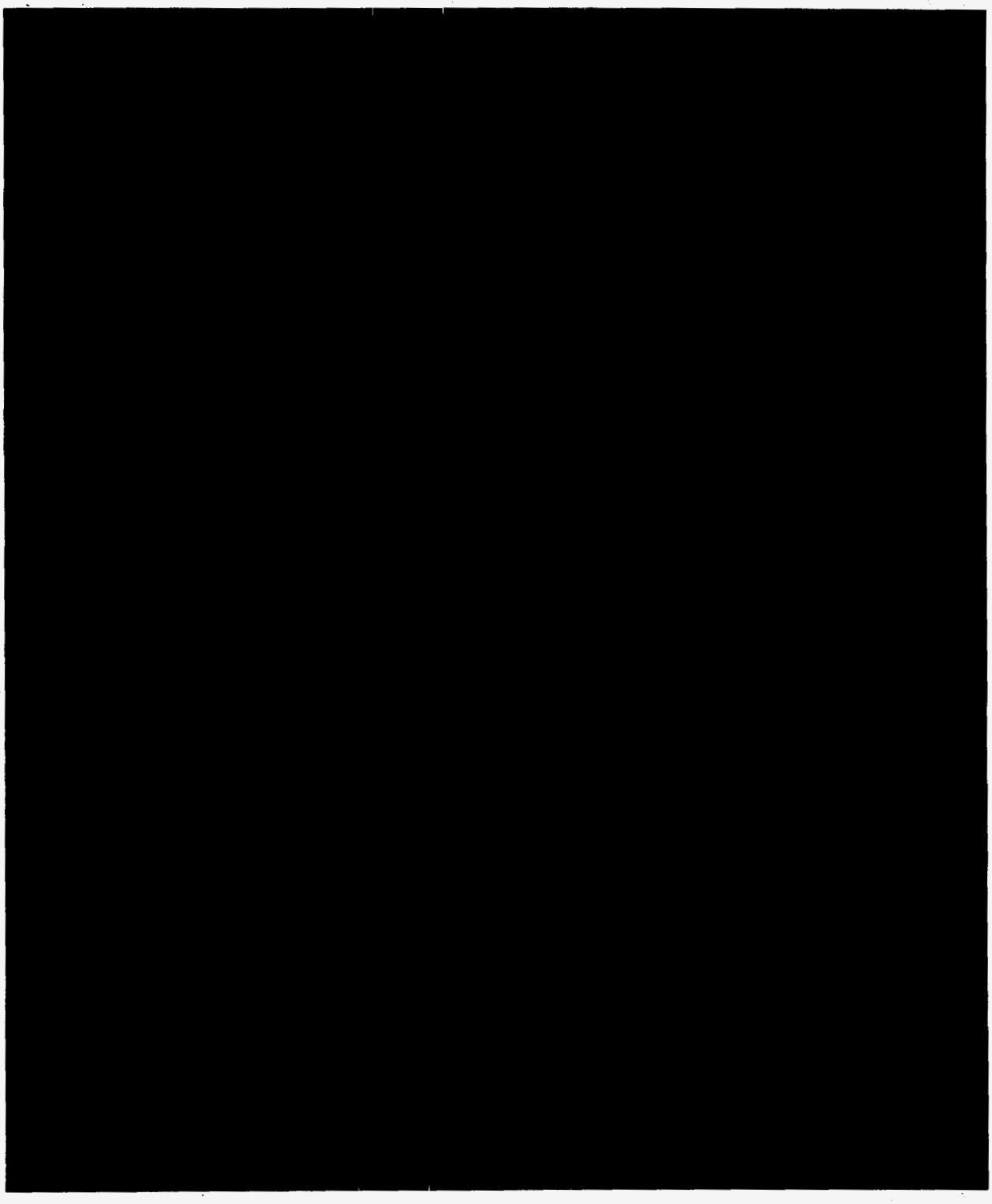

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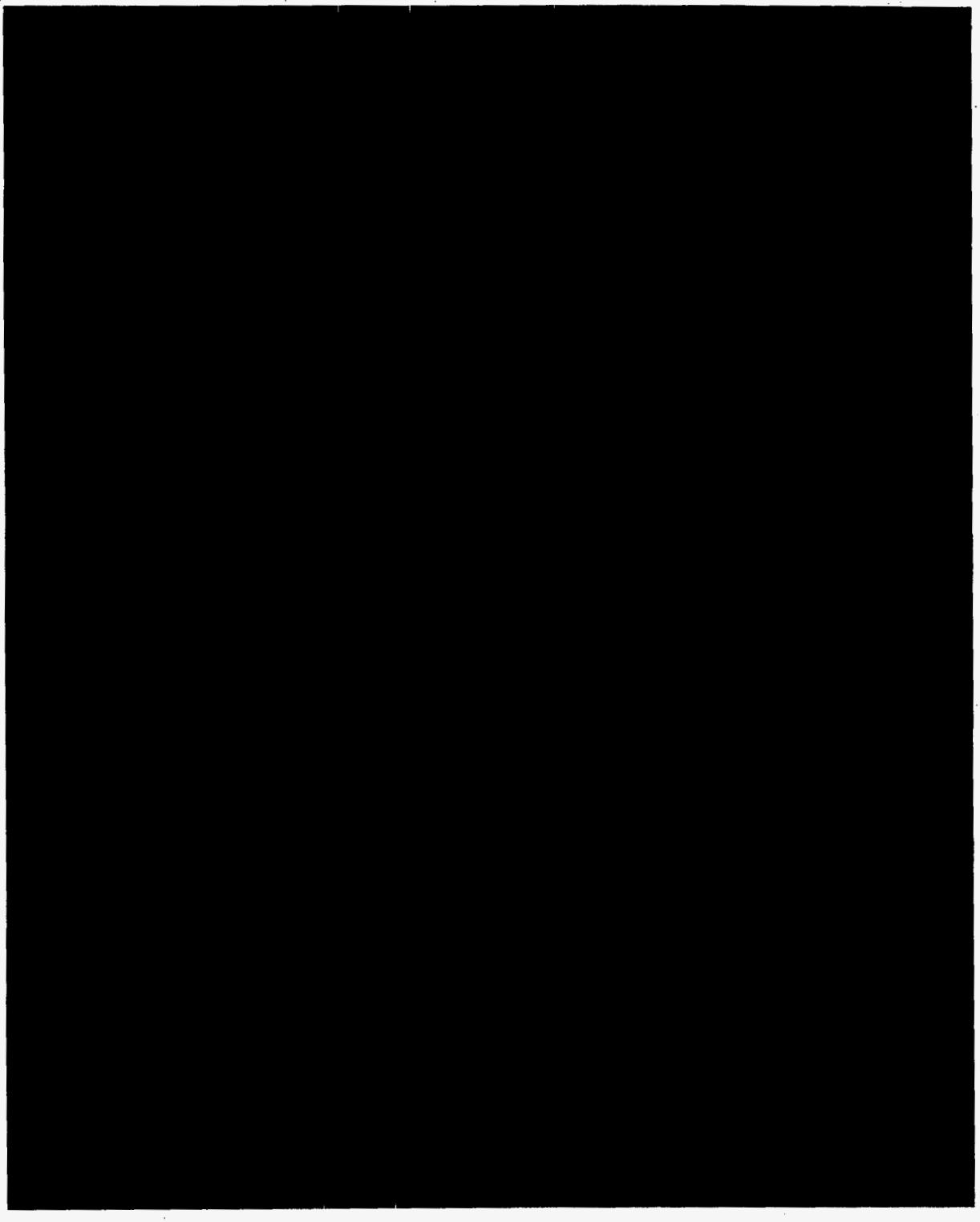

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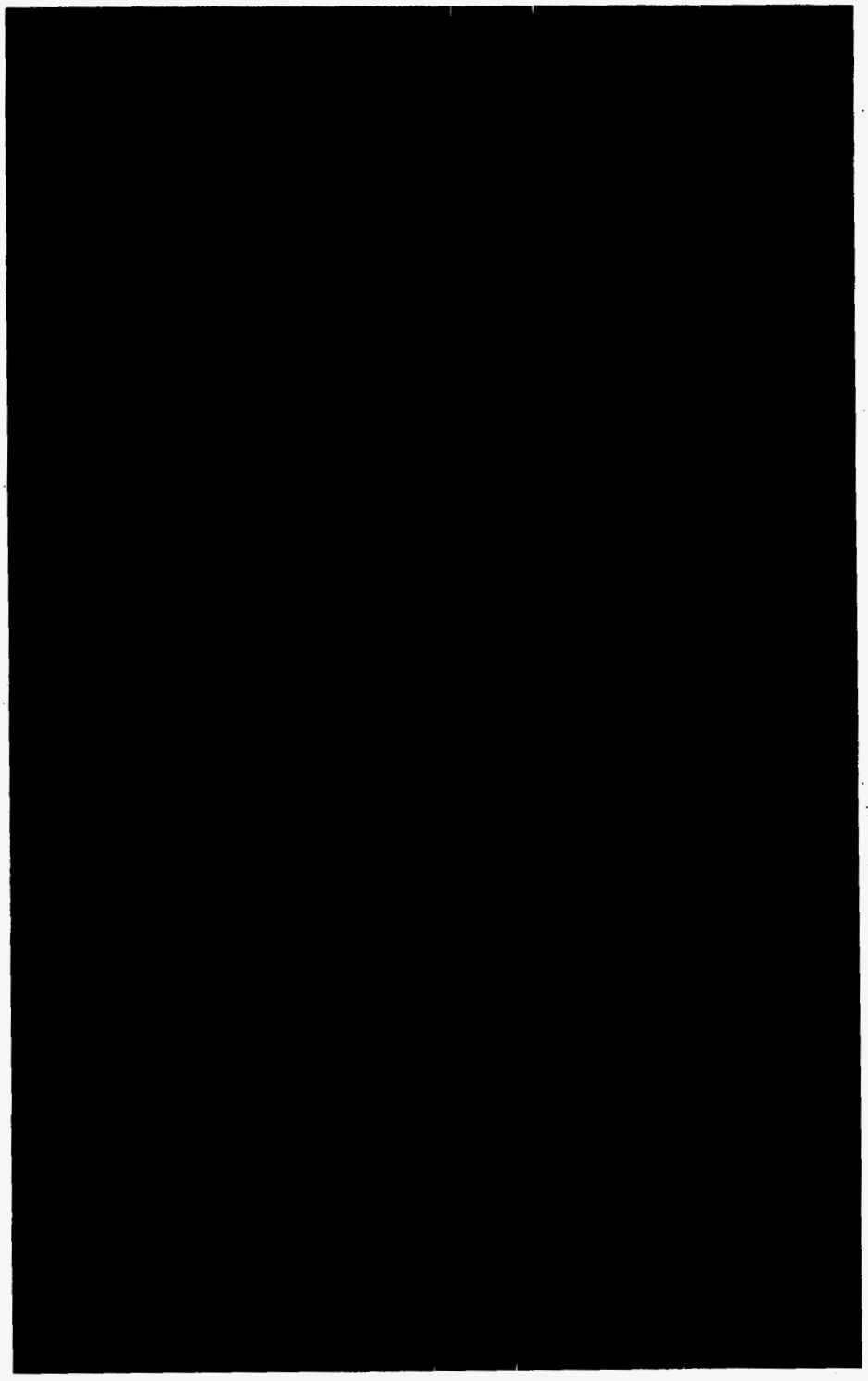

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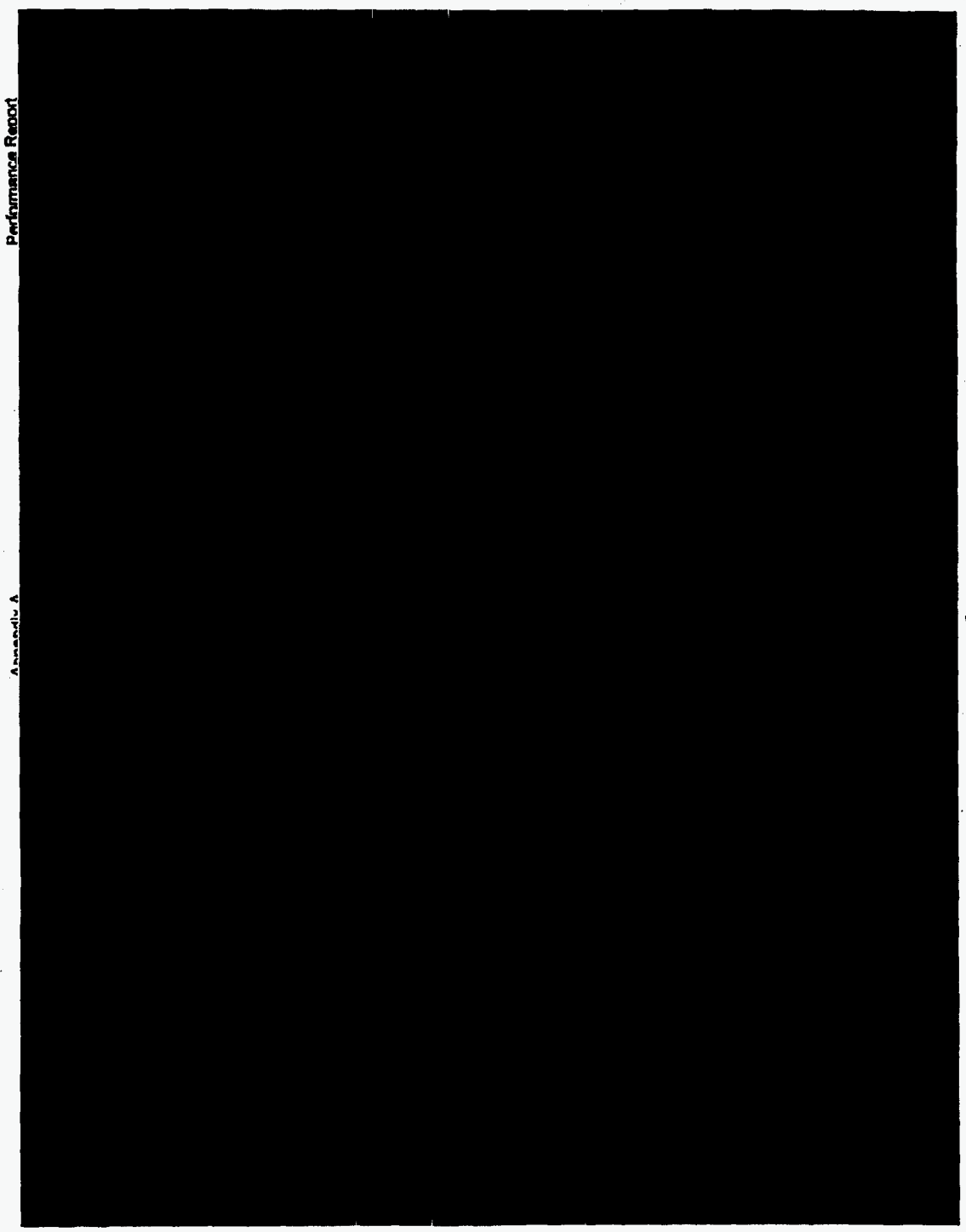

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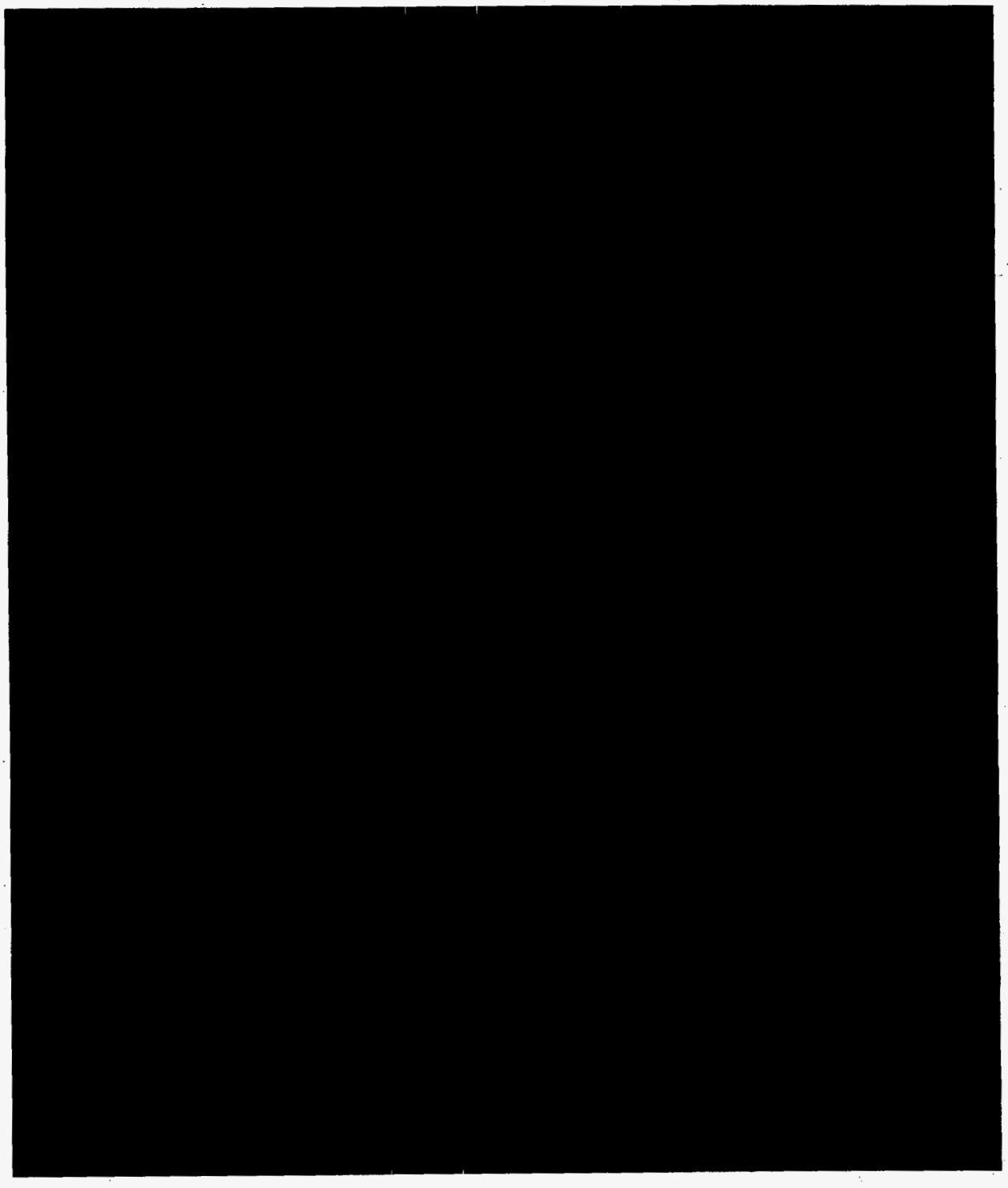

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

IN RE: NUCLEAR POWER PLANT COST RECOVERY CLAUSE
Docket No: 090009

DEPOSITION TRANSCRIPT

Volume I, Pages 1-103

DEPOSITION OF: GARRY DALE MILLER

TAKEN AT: Carlton Fields
4221 W. Boyscout Boulevard, Suite 1000
Tampa, Florida

DATE & TIME: July 2, 2009
Commencing at 9:00 a.m.

REPORTED BY: Penny M. Appleton, RPR
Notary Public

year project that you have to start and maintain a commitment to go through. If we were to stop and start every year based on the changes in those tables, that would be unproductive and inefficient and not in the best interest of our rate payers.

Q Okay. Well, I guess we'll get into those when we talk about the feasibility analysis that -- that you've done, but you state here on Line 20 -- 20, starting with, PEF accordingly remains committed to the project, and the LNP remains feasible. What is your definition of feasible as is used in your testimony here?

A When we consider feasible, we consider is it technically feasible? Is the AP1000 design as deployed at this site, the Levy site, are there any technical issues that suggest that will not work? We also consider regulatory feasibility or, if you will, the legal feasibility. Can you secure all of the permits, approvals, authorizations, licenses, like zoning permits and comprehensive -- comprehensive land use amendment, things like that? And in those cases and for both the technical and, as I described, this regulatory feasibility, the project still is feasible.

Now we also consider cost, and so as we go forward, as we said earlier, on an ongoing basis, we will always consider the total project cost and make informed

decisions of moving the project forward.

Q Okay. So is this term "feasible" that's on Line 22 of Page 15 -- is that the same as is used in Section 6 or Roman Numeral 6 of your testimony, Page 25, Lines 7 and 8? Is that the same definition of feasible?

A Okay. Give me the lines again, please.

Q I'm sorry. Page 25.

A Right.

Q And the question and answer on 7 and 8, Lines 7 and 8.

A Right. Is the Levy Nuclear Project still feasible? Yes. And if you drop down and look at Line 16 --

Q Uh-huh?

A -- the technology continues to represent a viable and feasible choice. And then Line 18, which is feasible as from a project milestone prospective, this has to do with -- it's inferring that you're able to secure the regulatory approvals you need to continue that -- the project, except the LWA as noted.

Q Okay. Is -- is cost a factor in that Q and A that starts on Line 10 and continues -- of Page 25 and continues on to Page 26?

A Well, it shows up -- if you look at this question, you can see the way it's structured. You see Line 11 starts with sort of a technology feasibility. Line 18 is going

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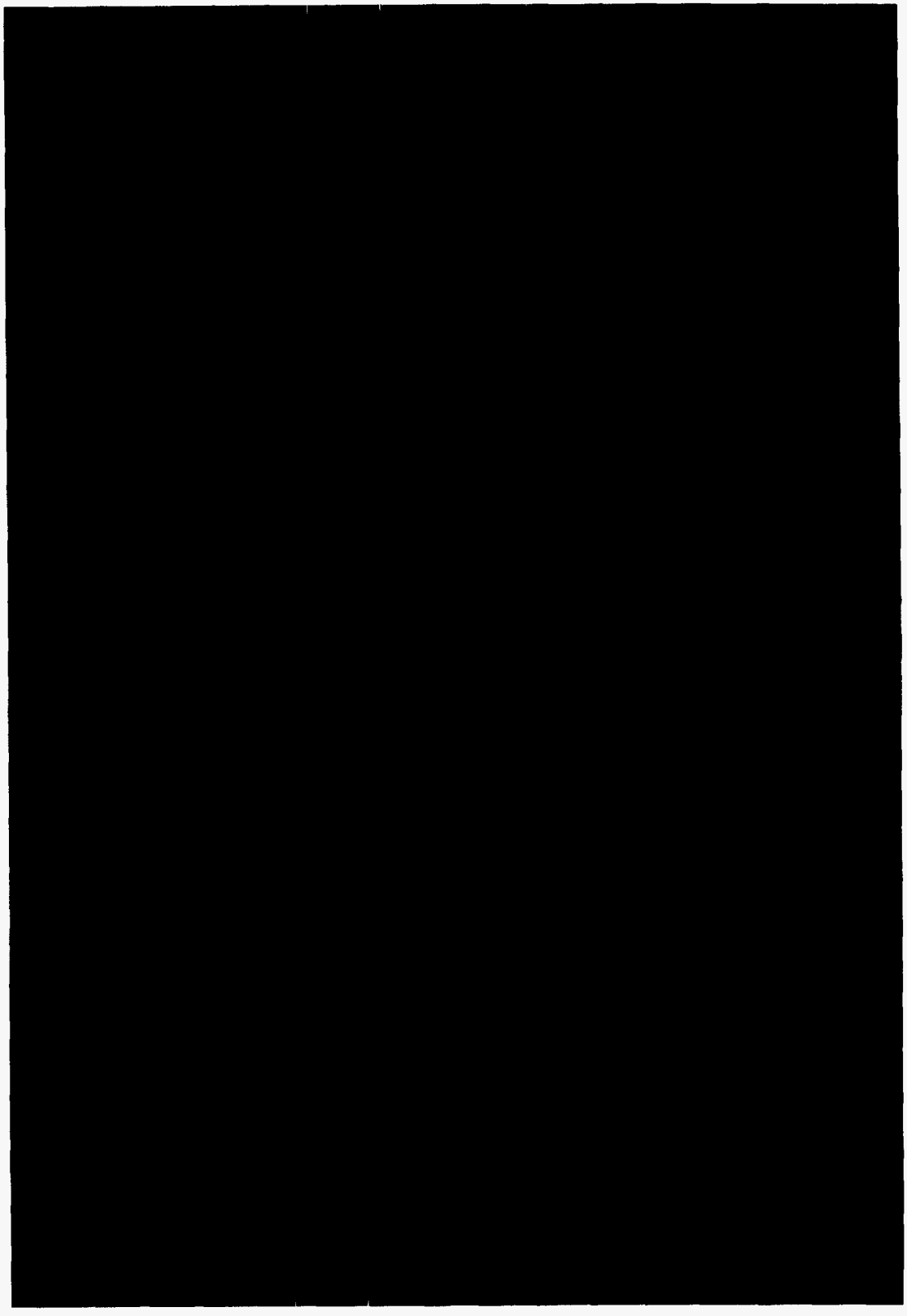

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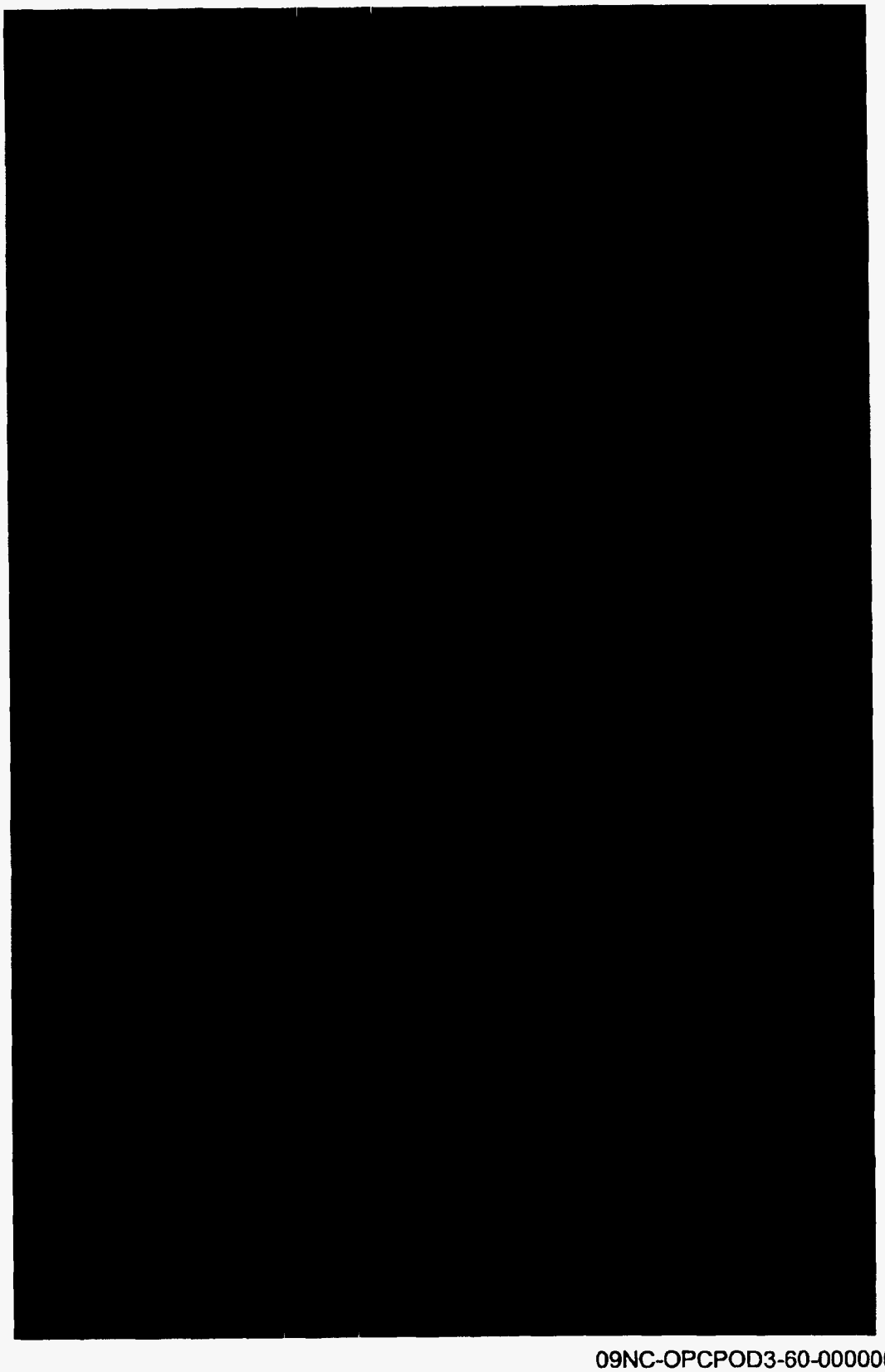

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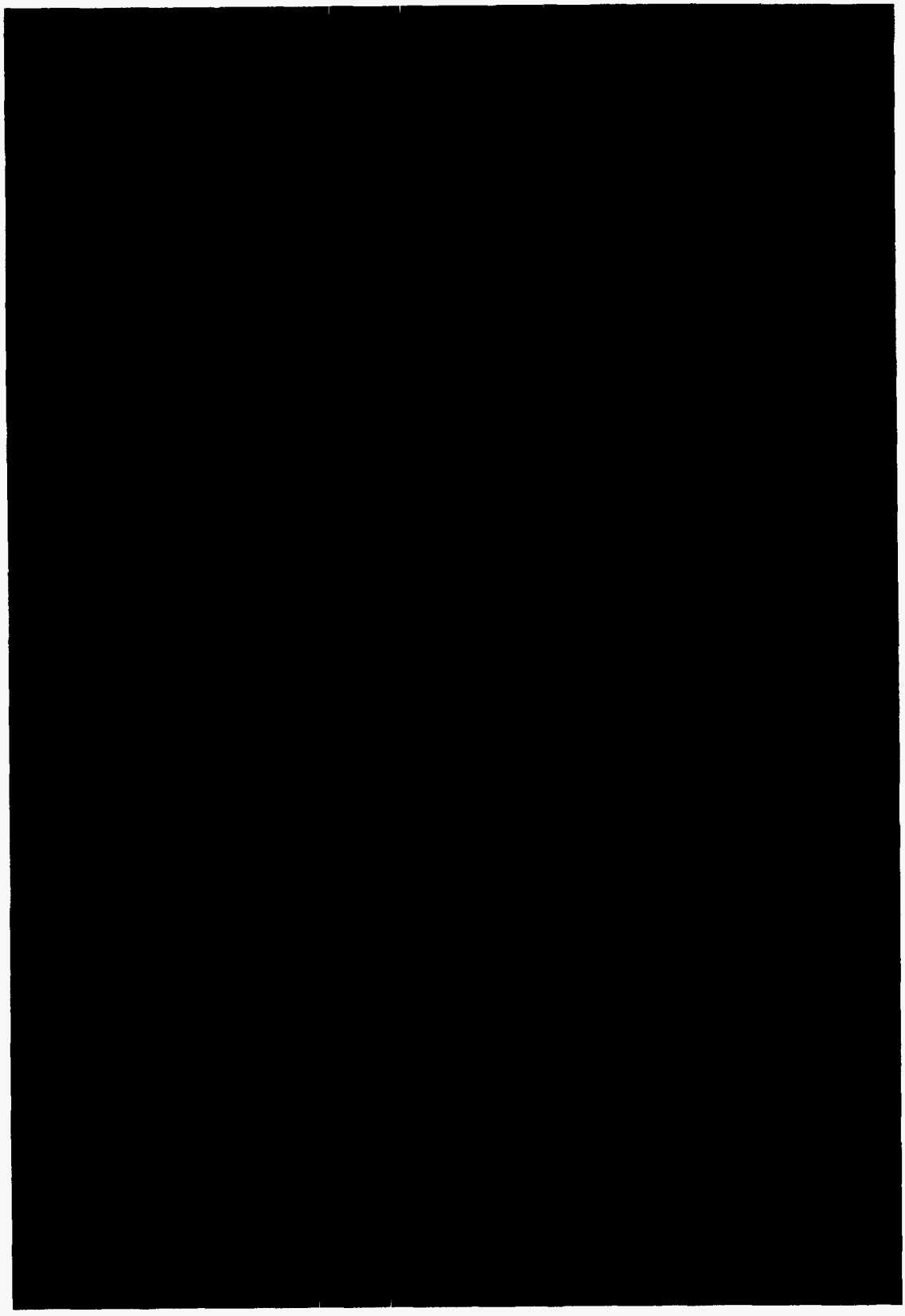

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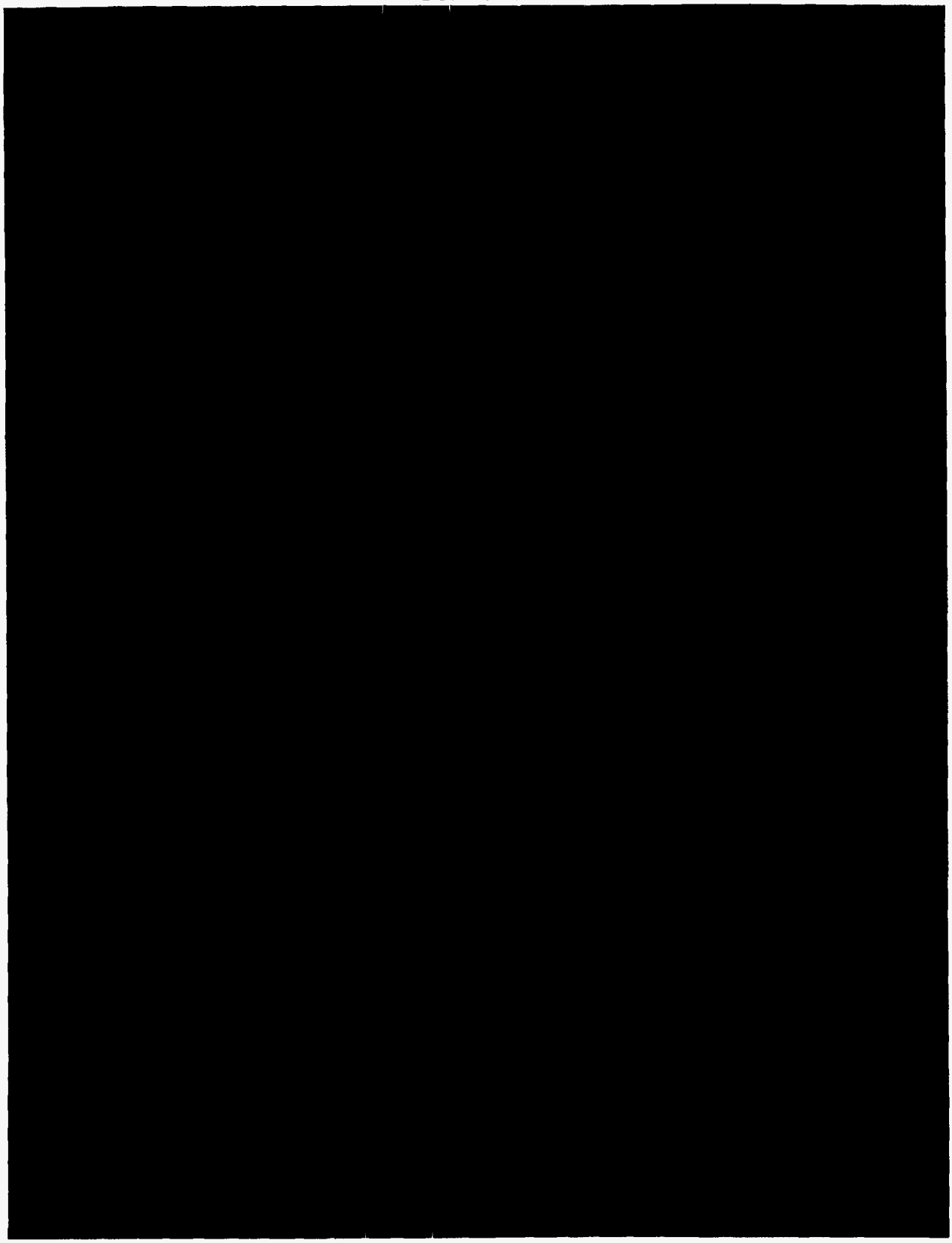

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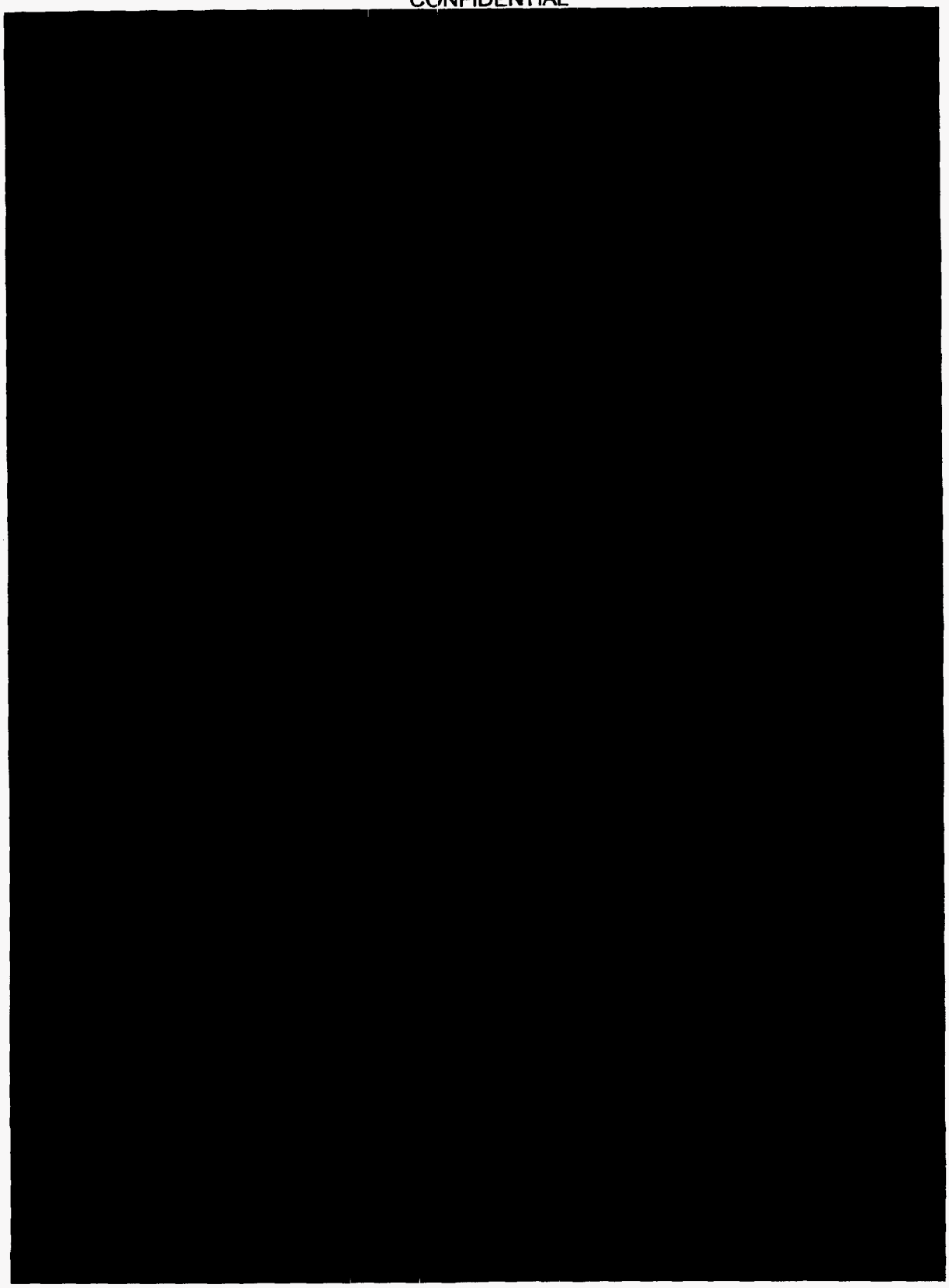

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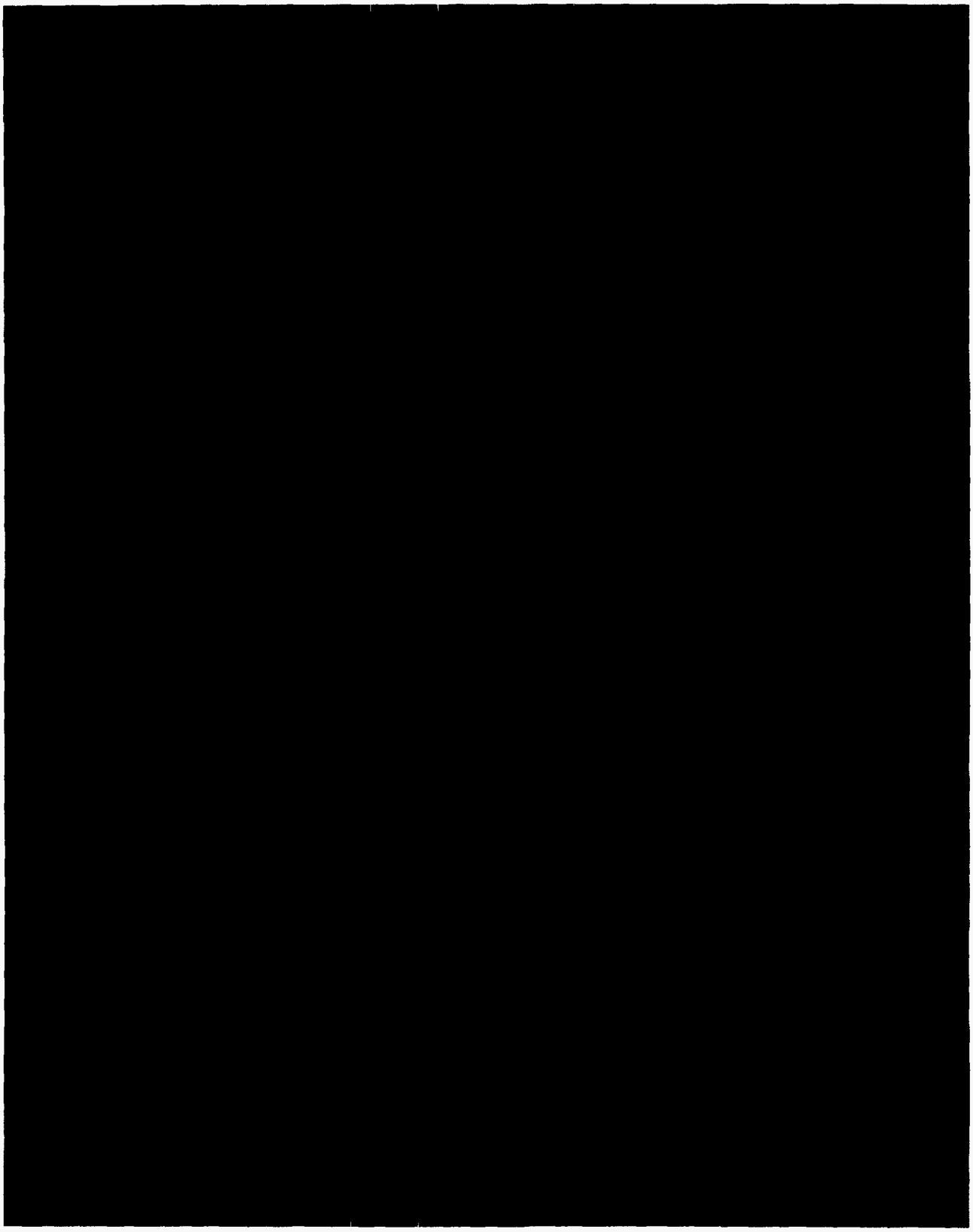

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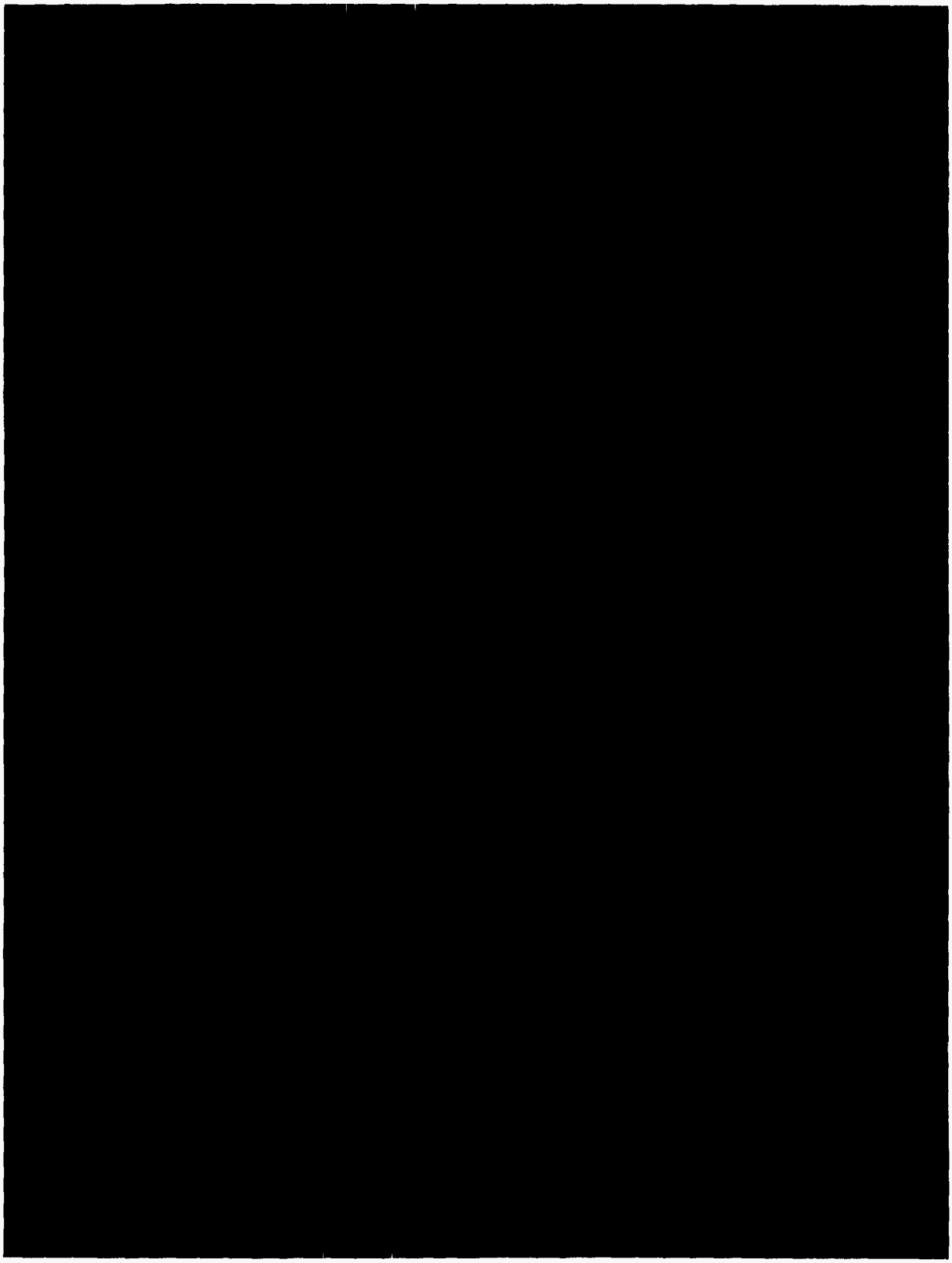

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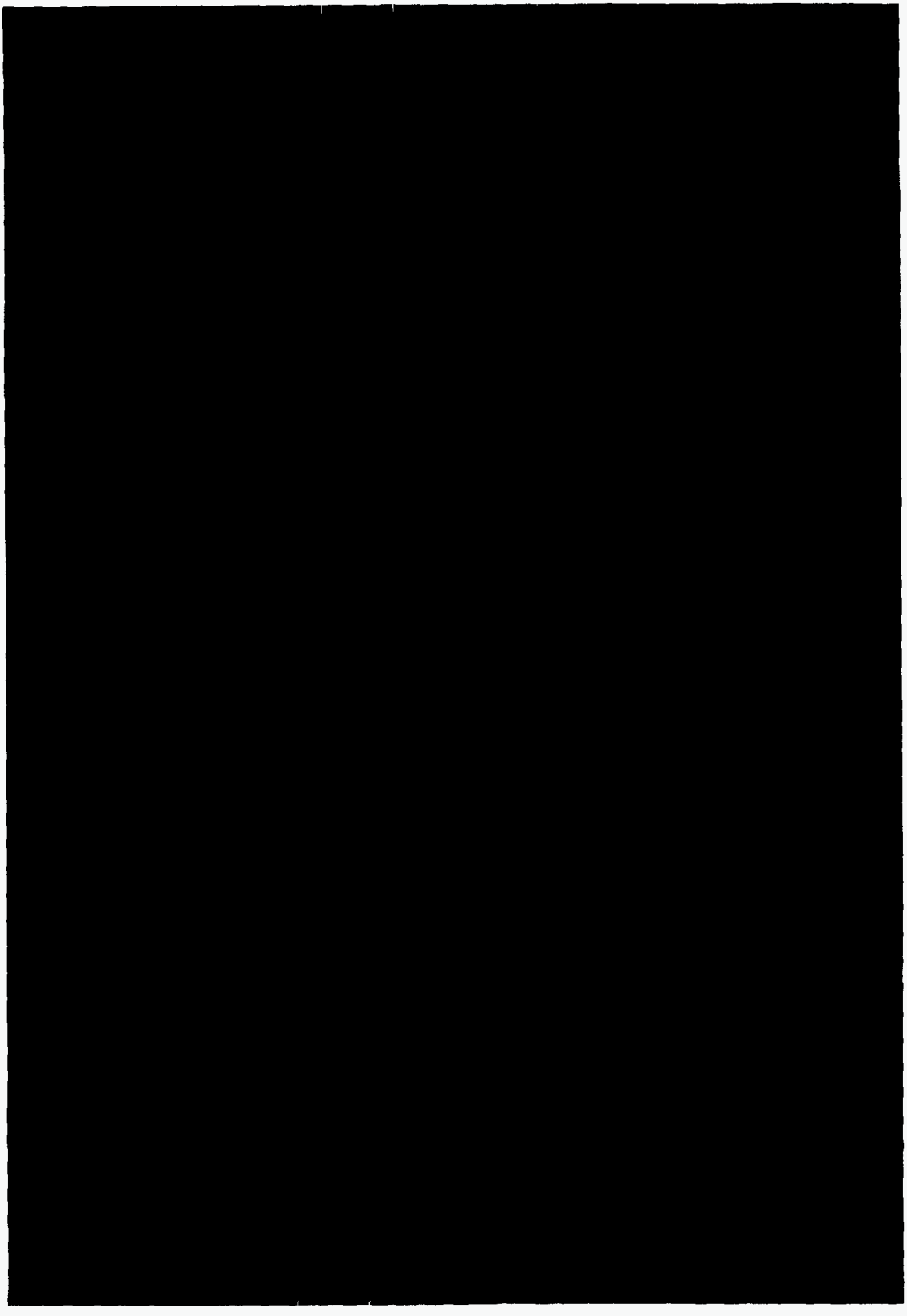

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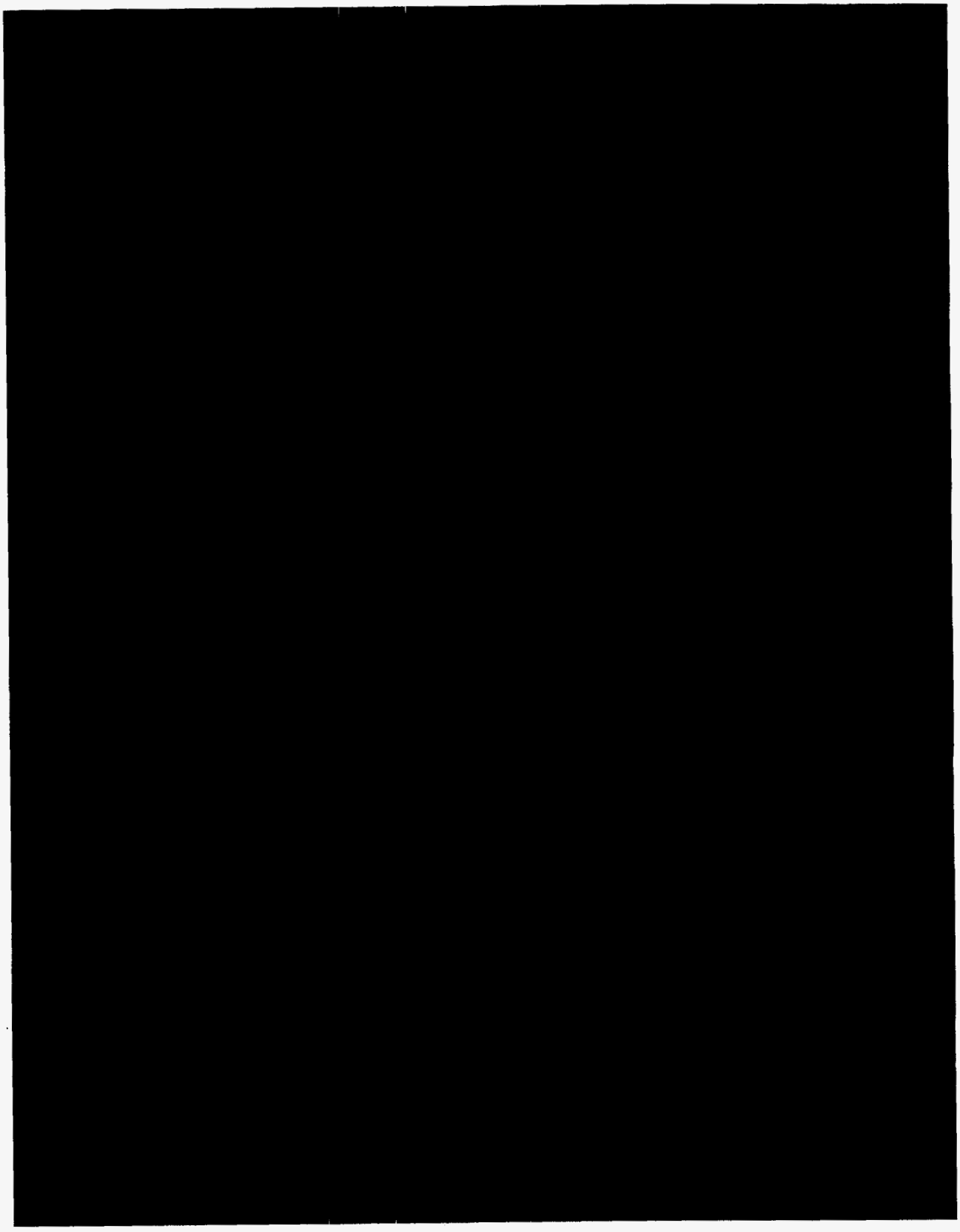

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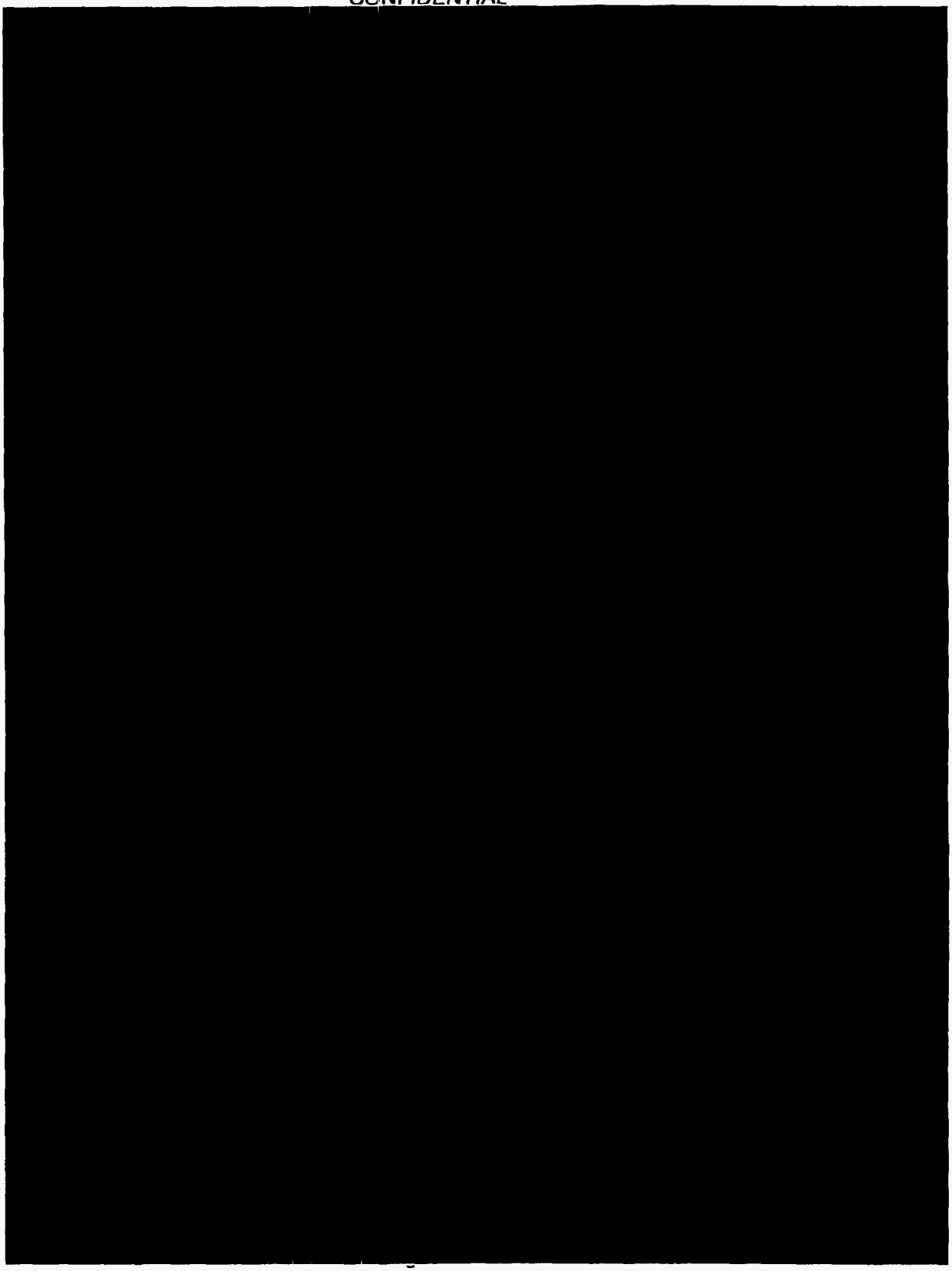

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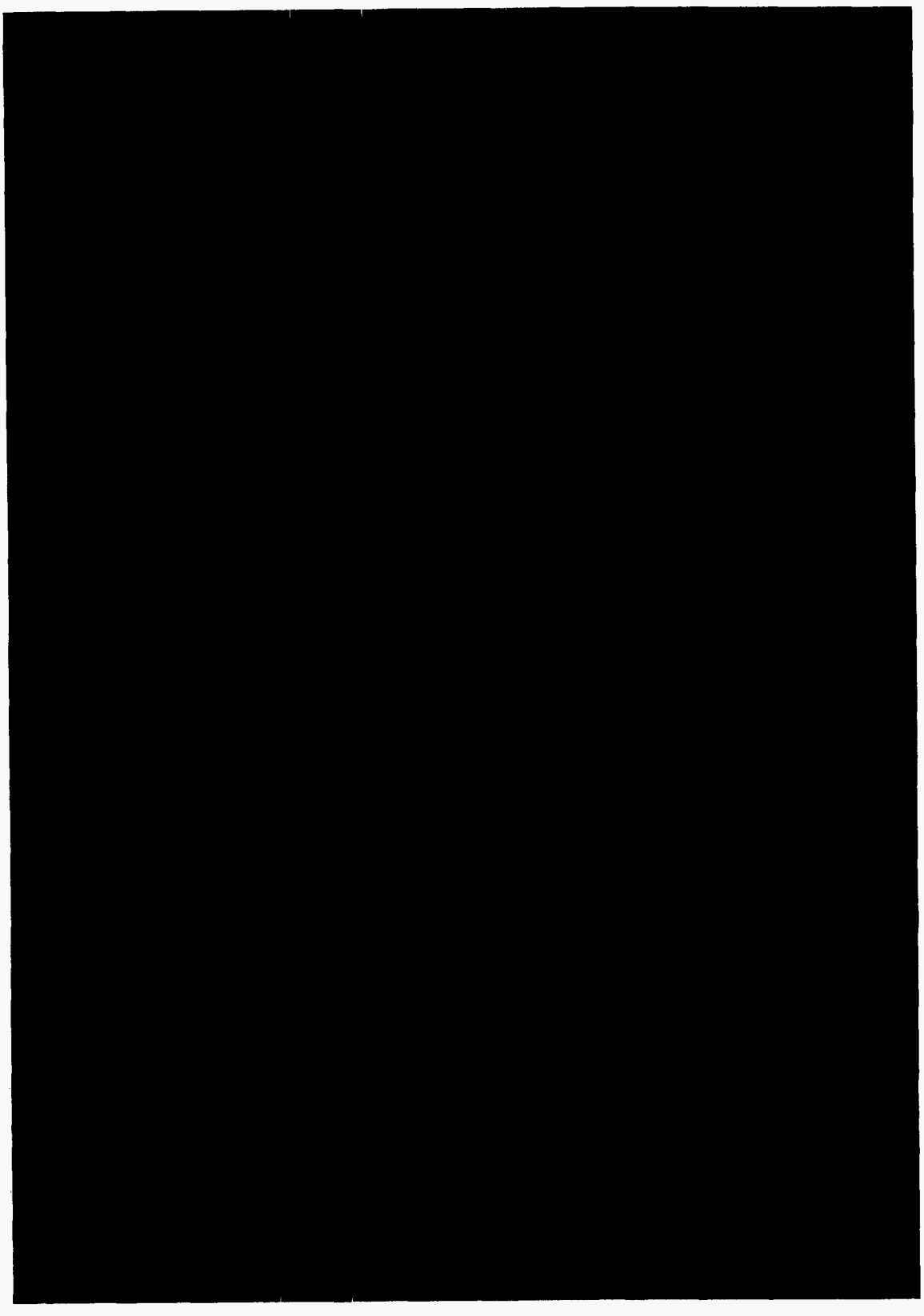

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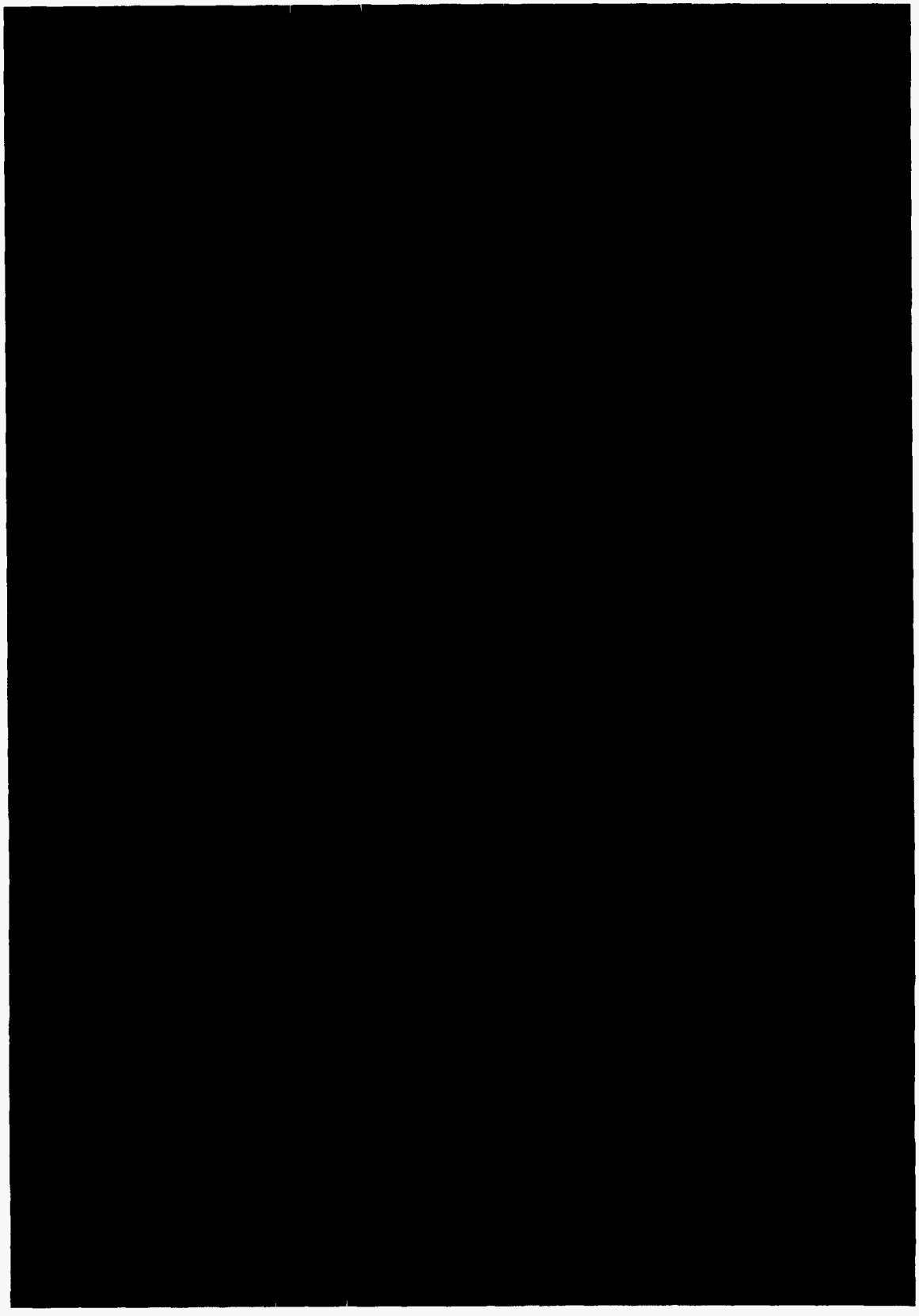

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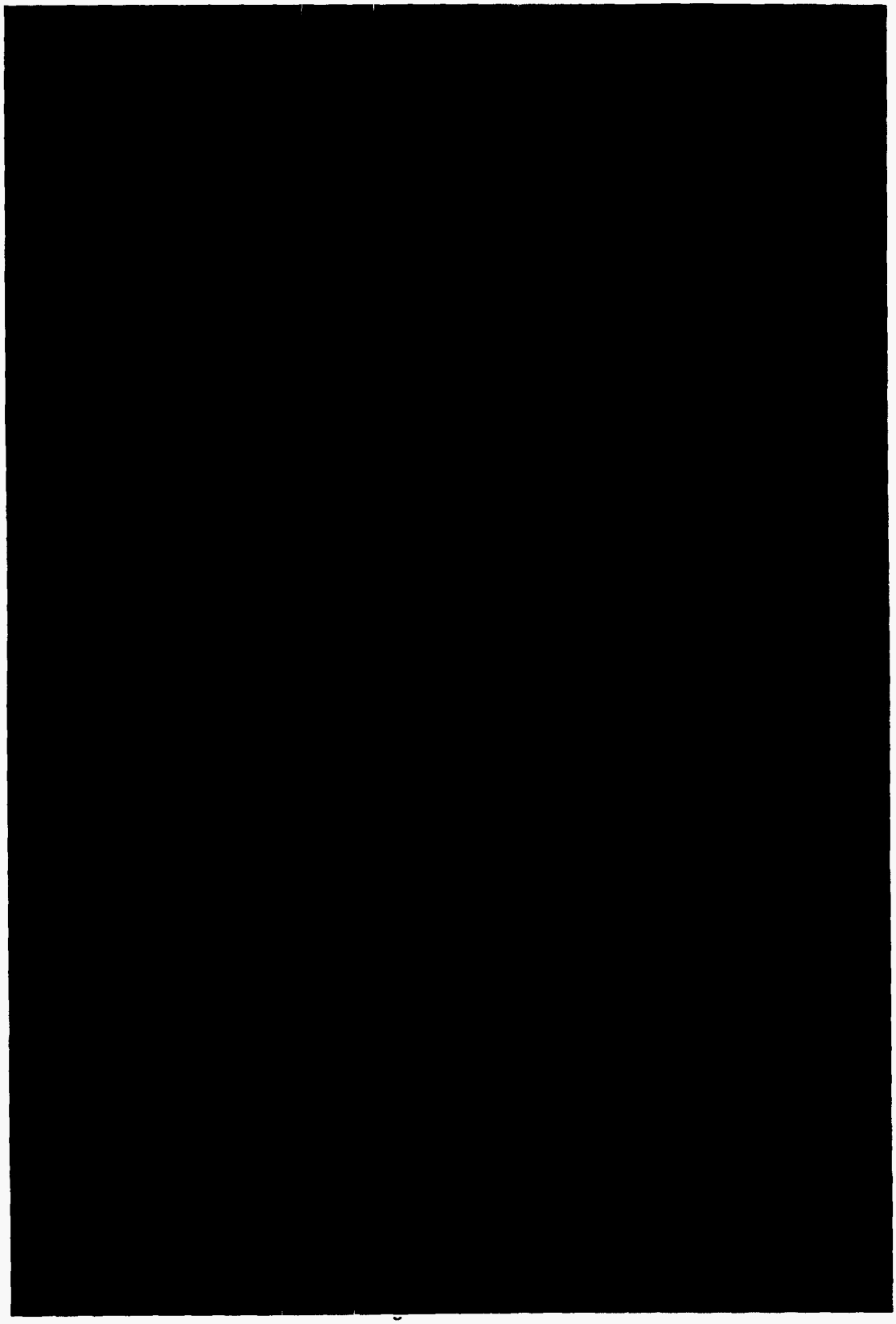

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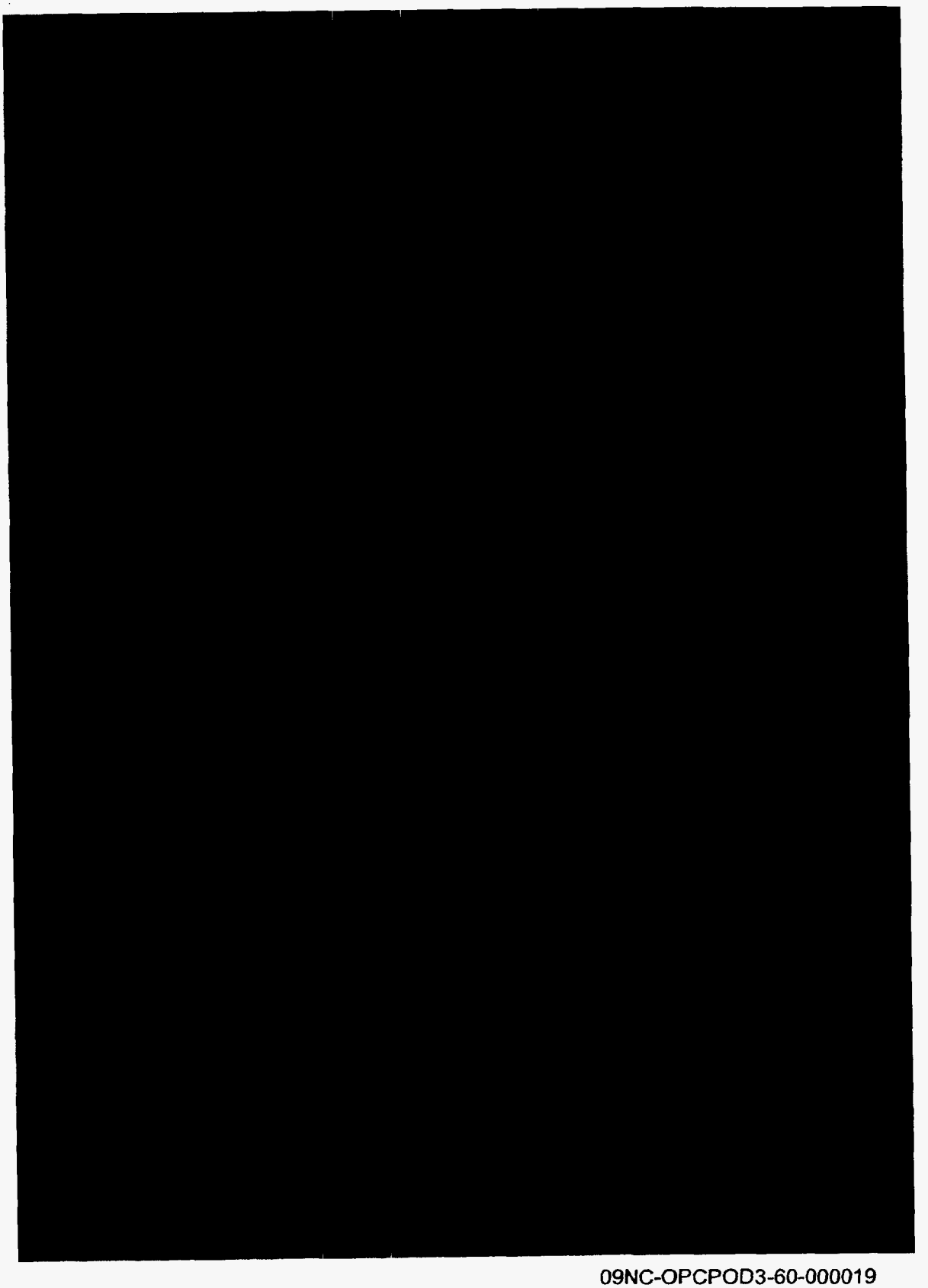

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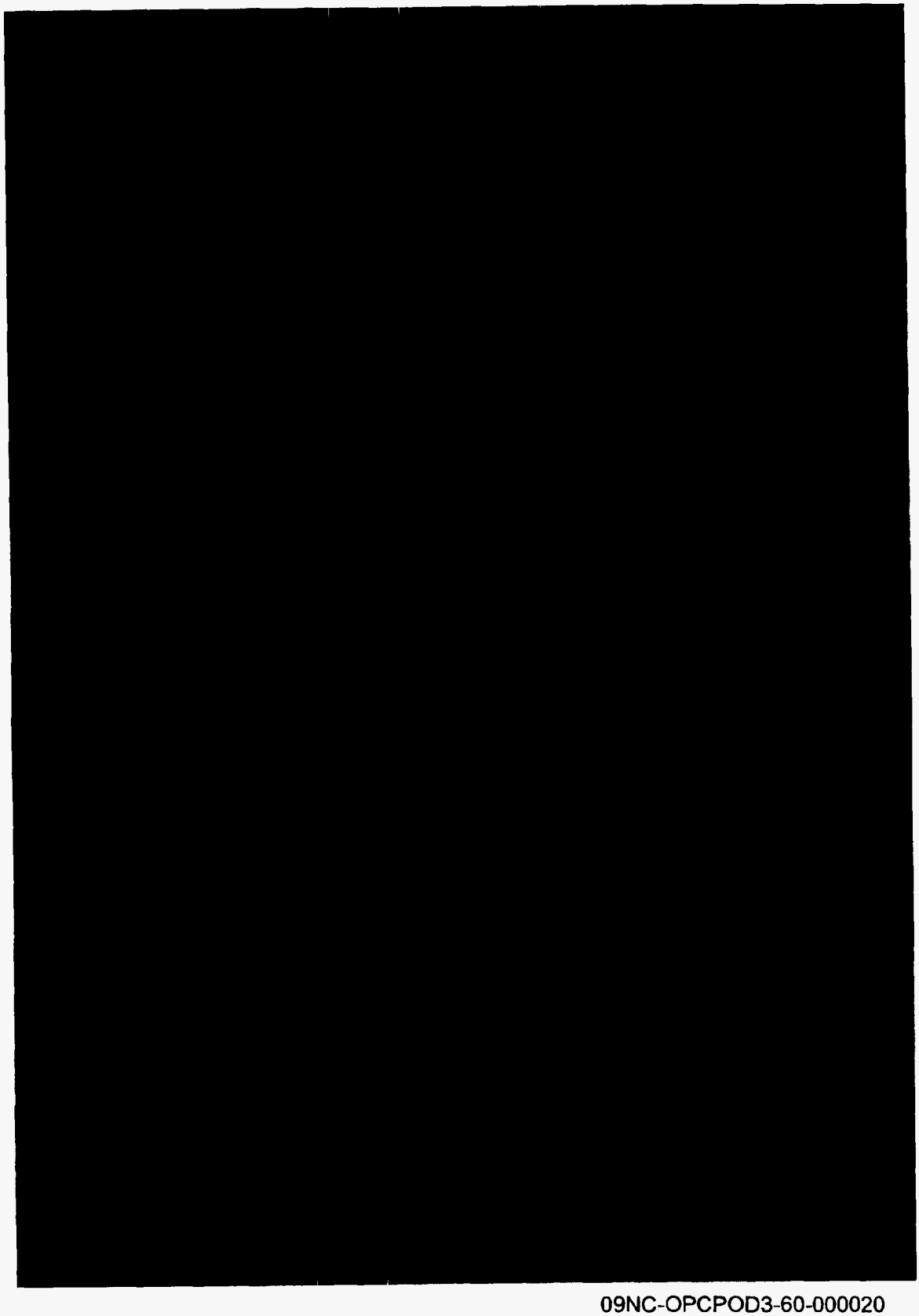

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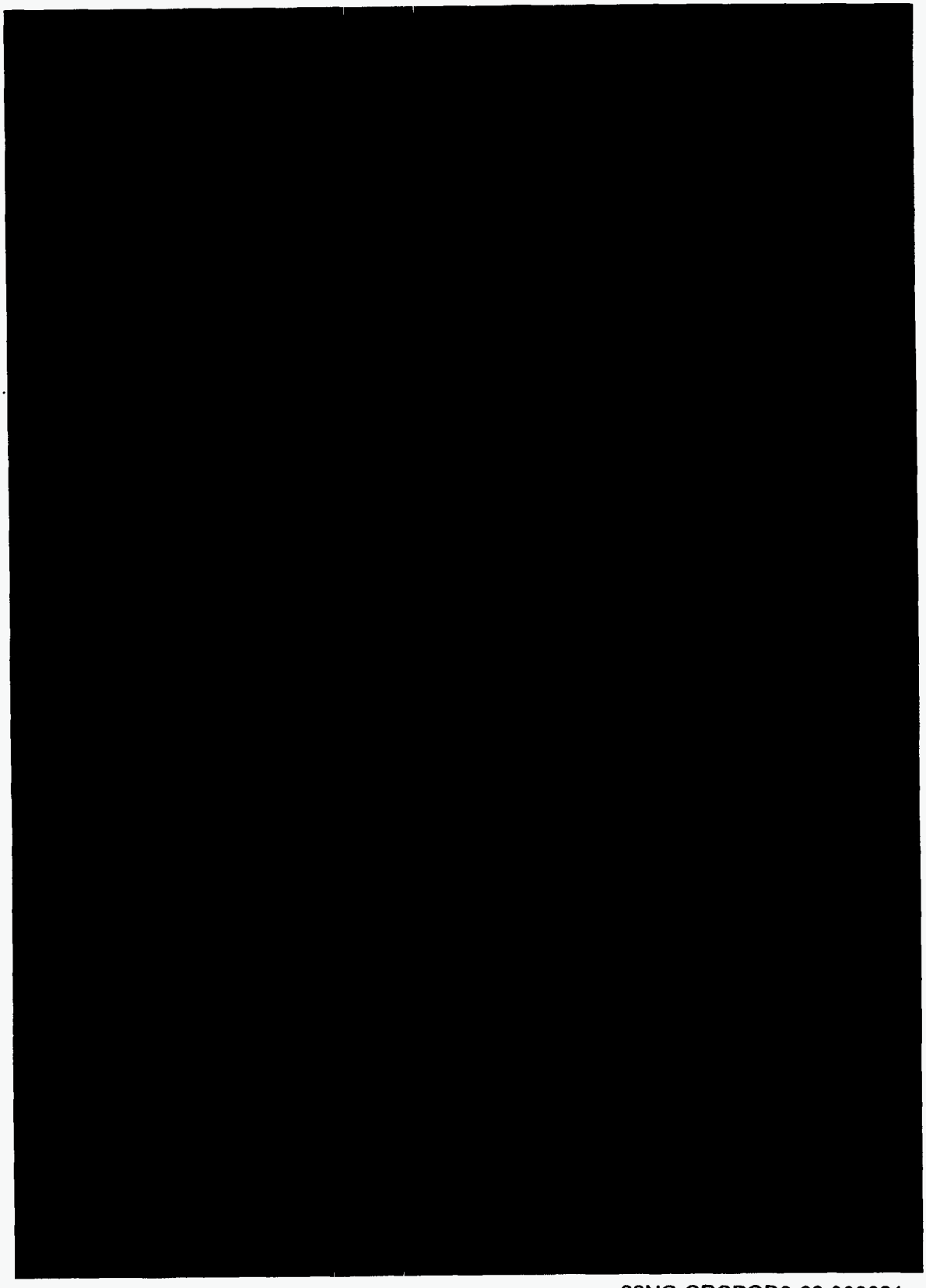

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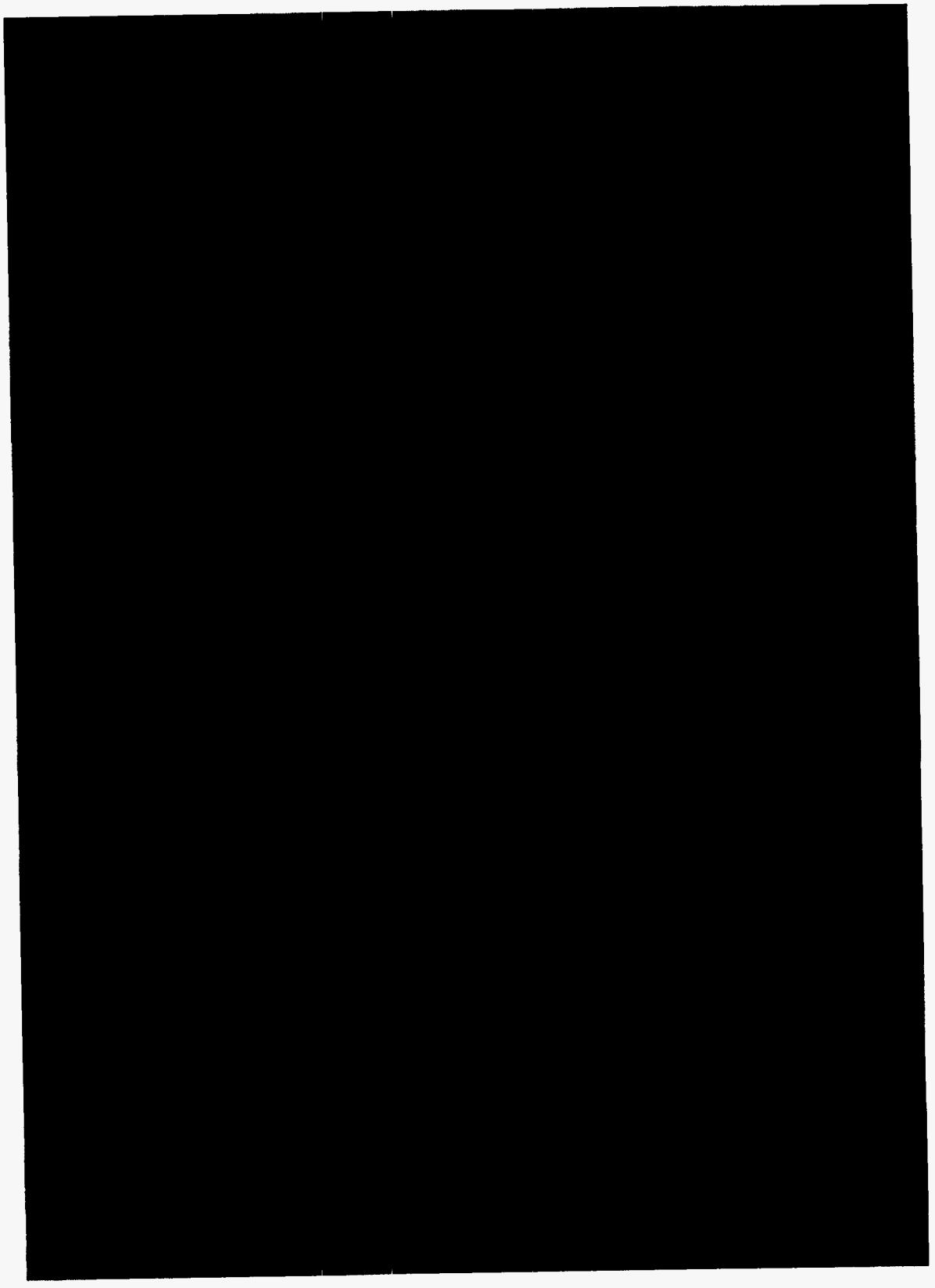

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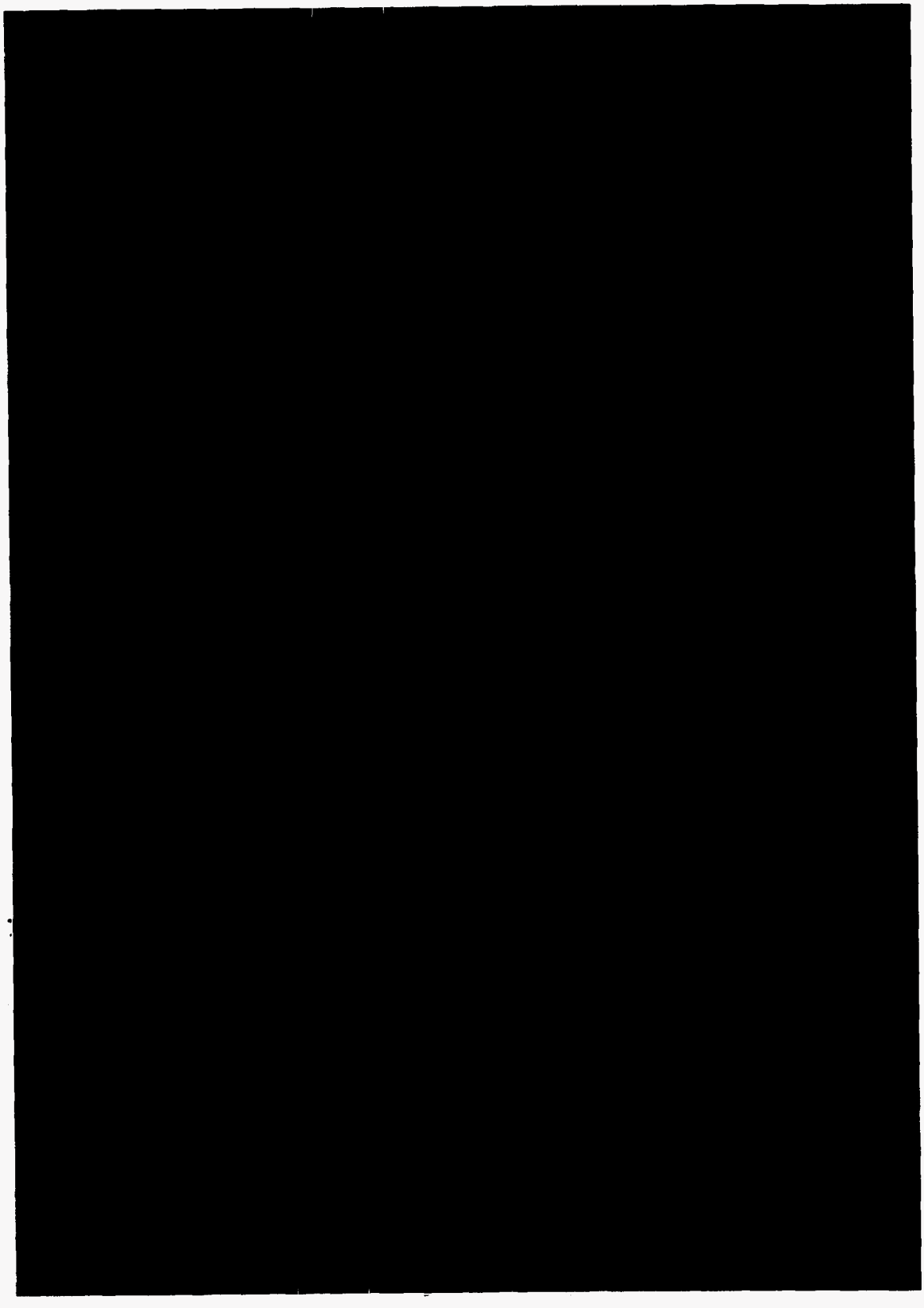

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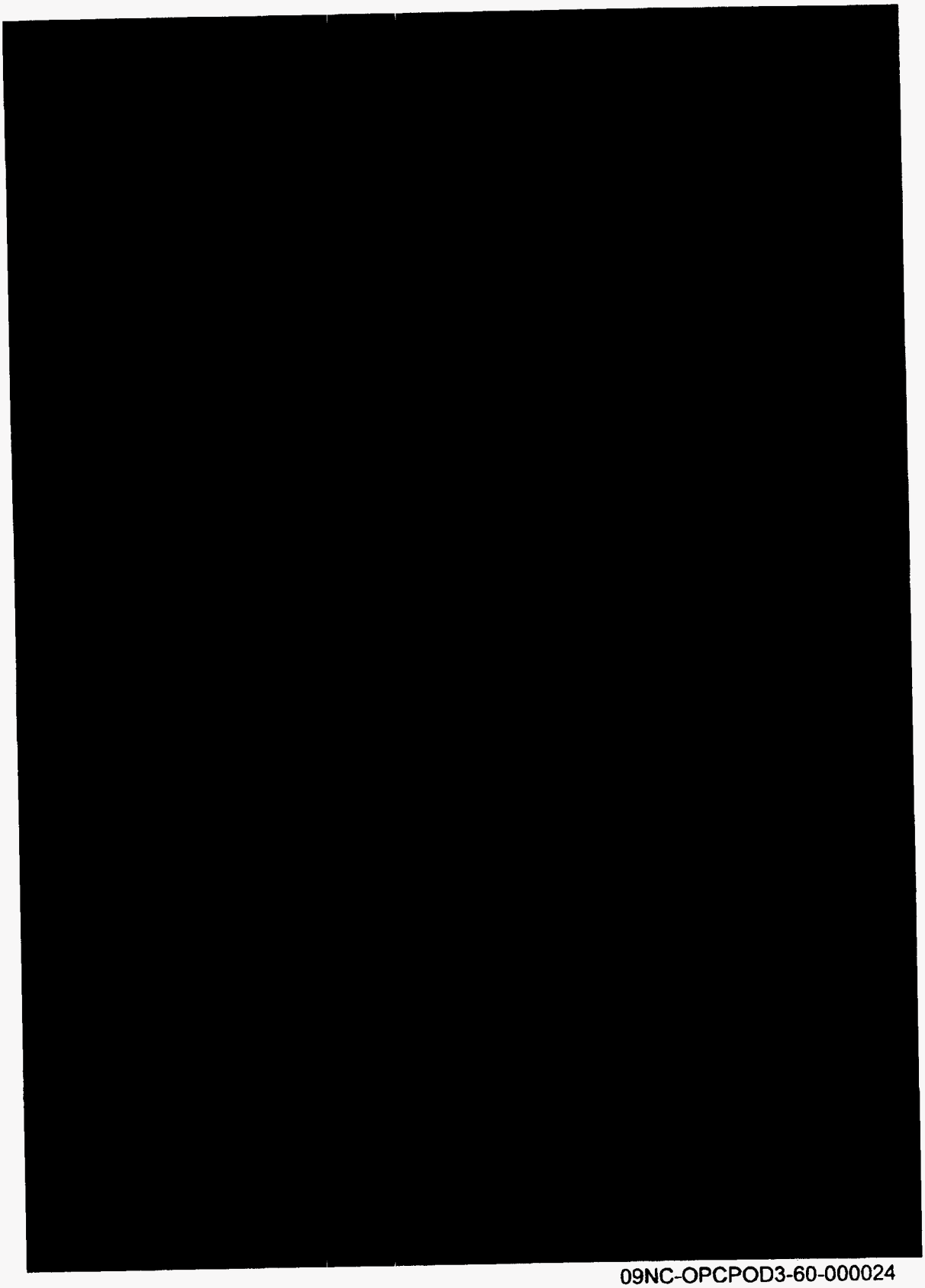

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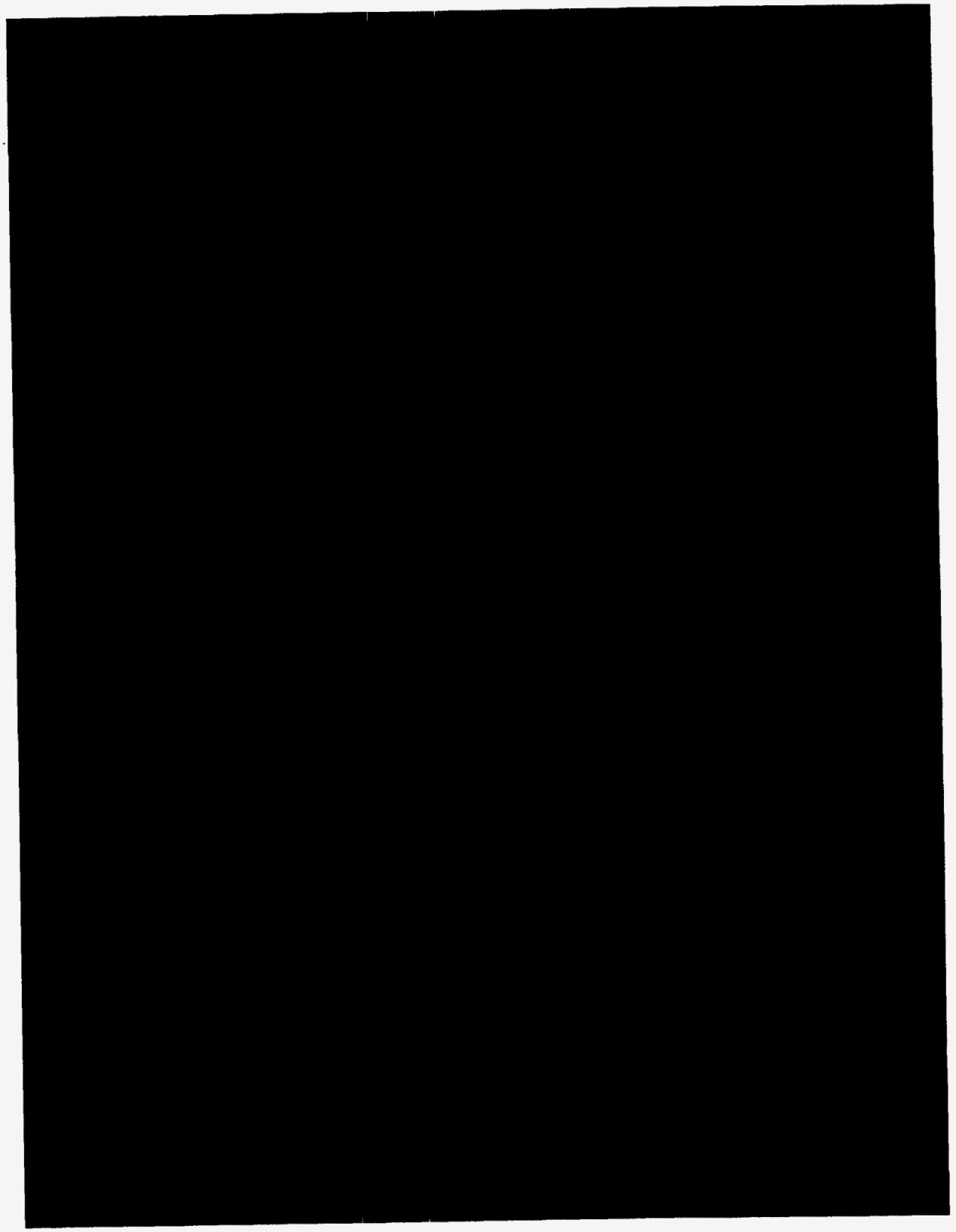

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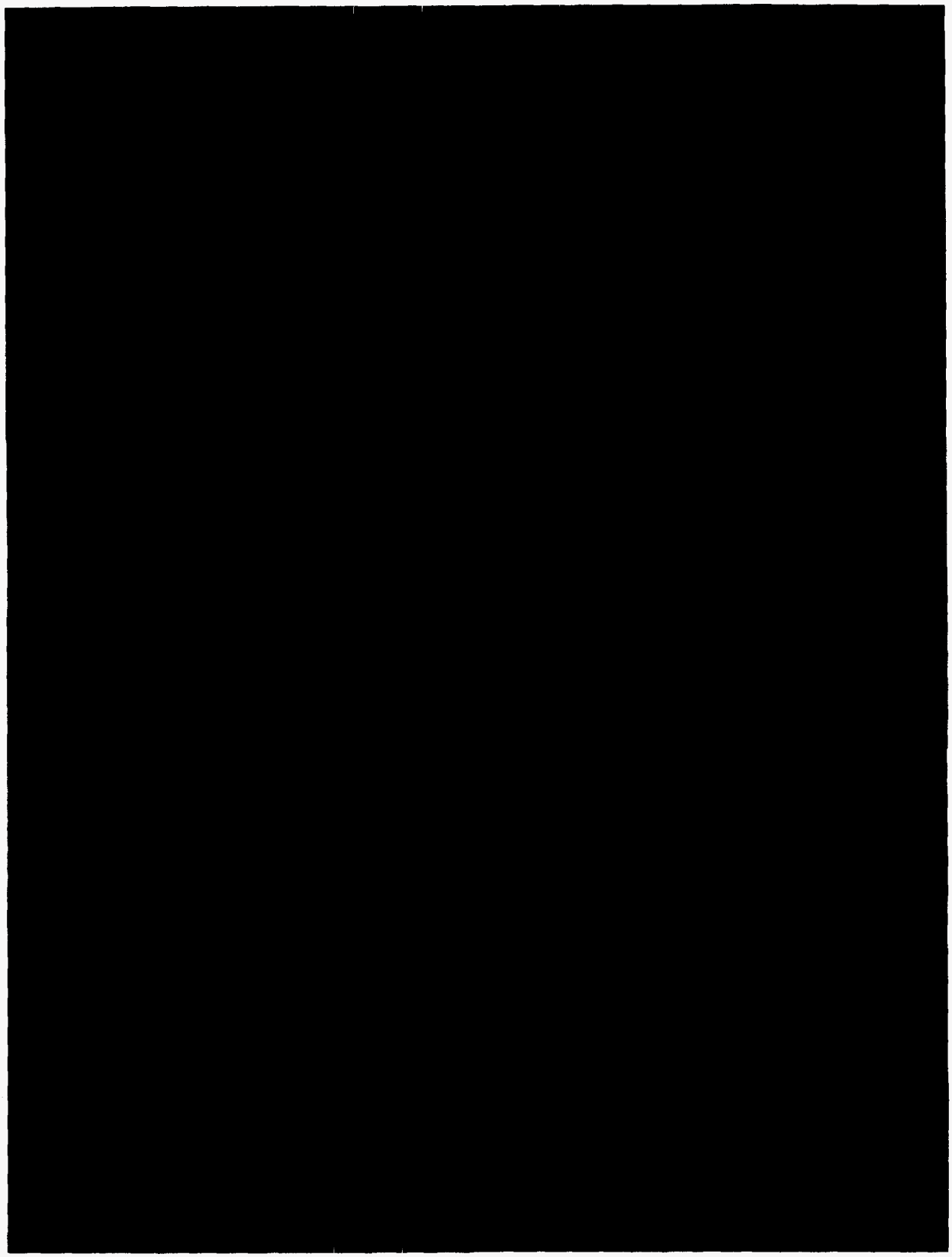

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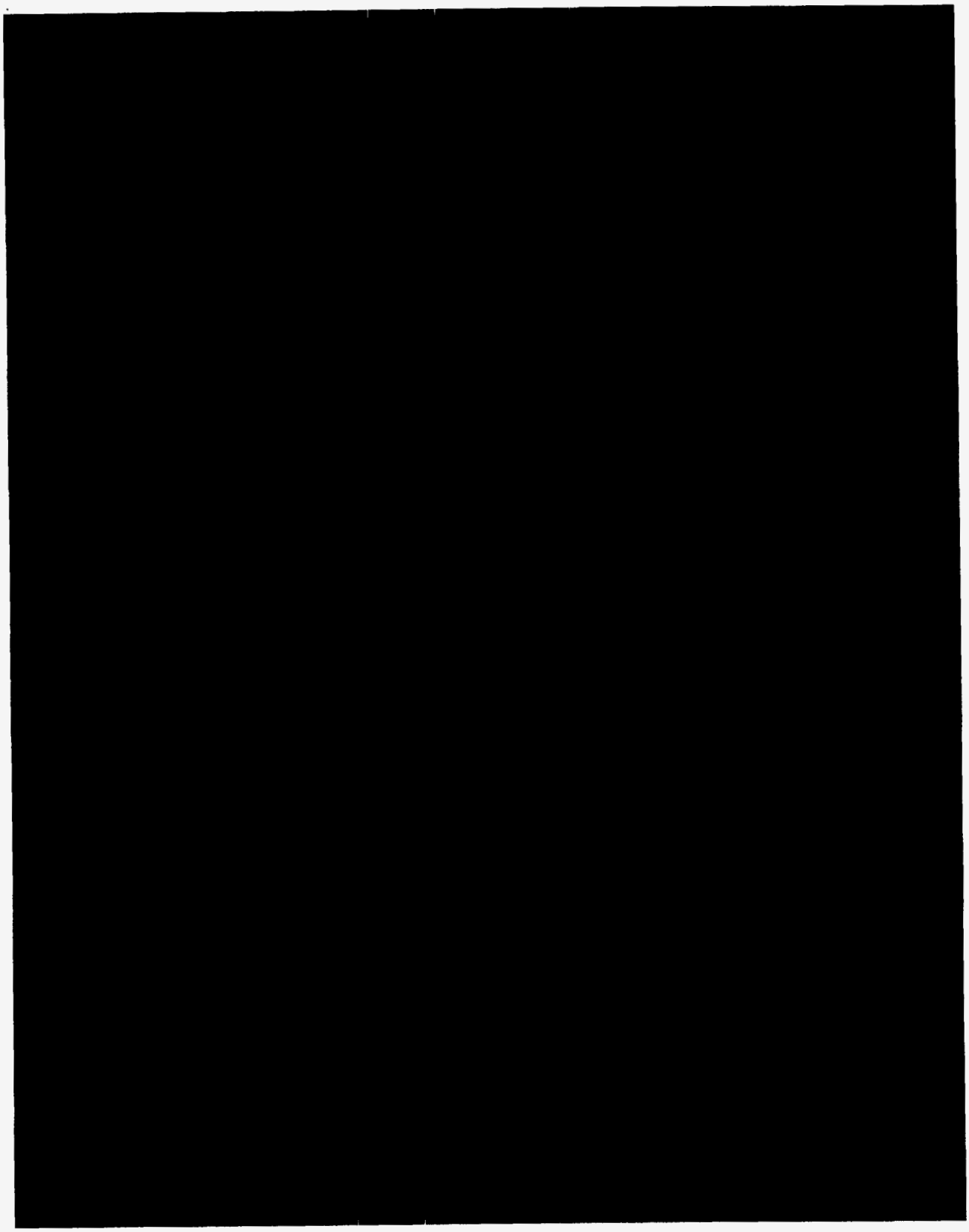

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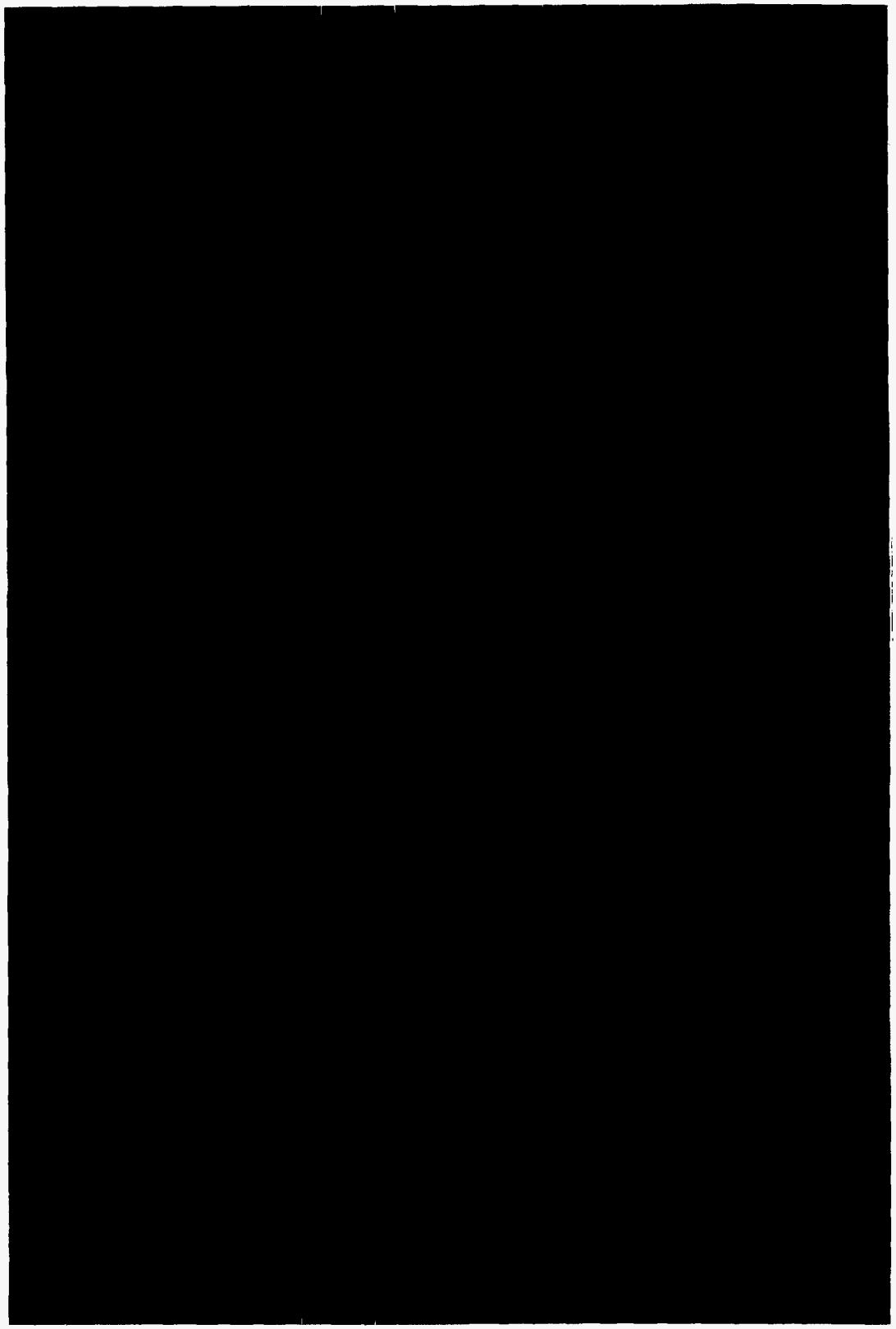

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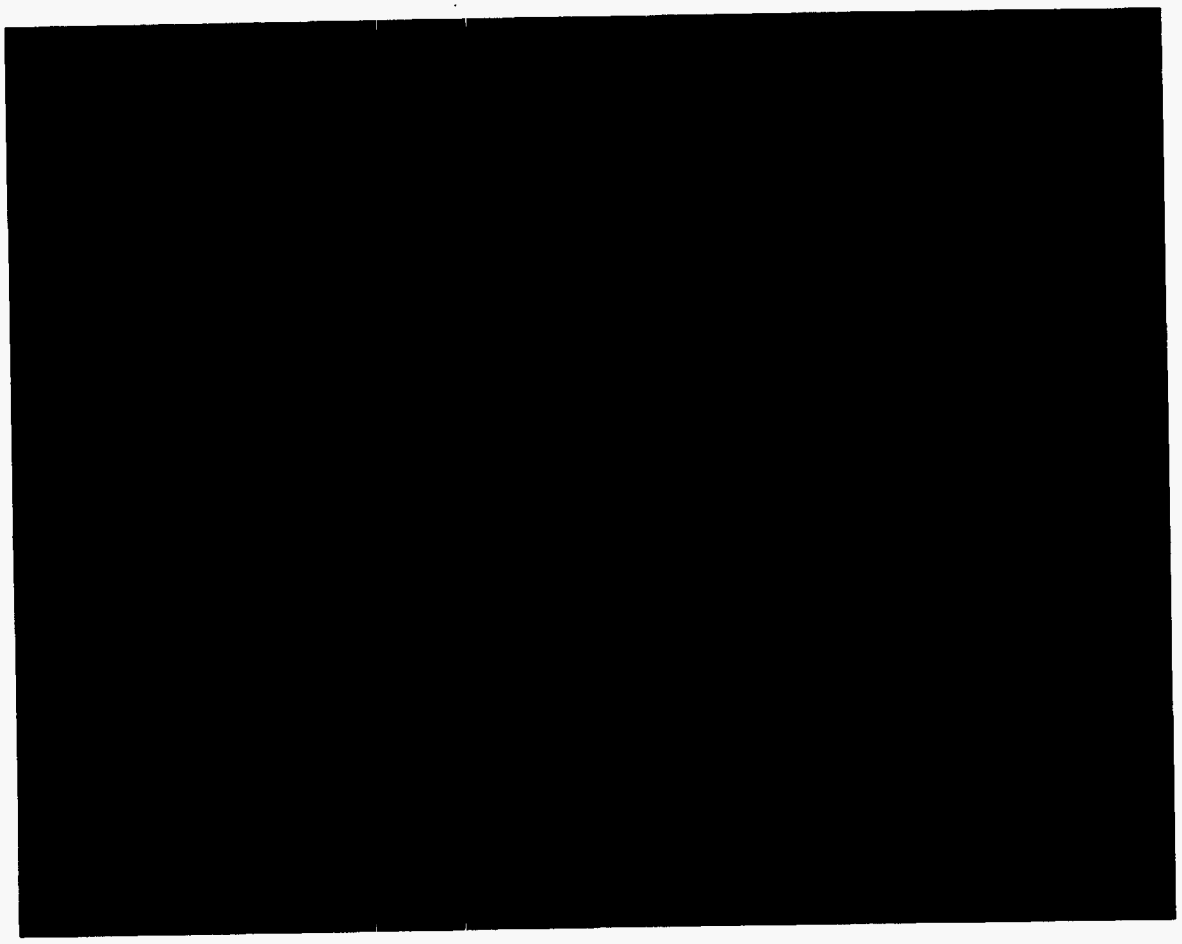

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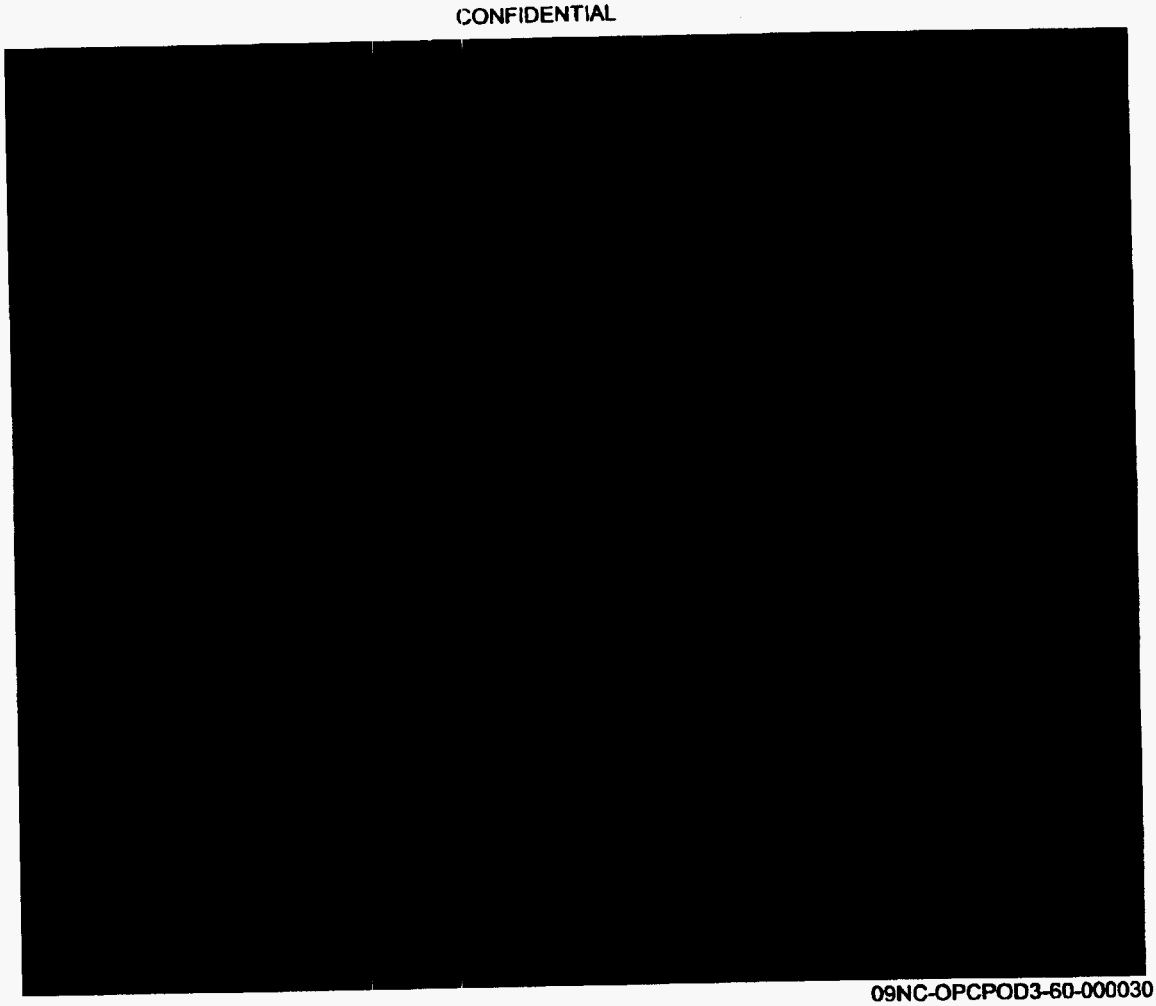

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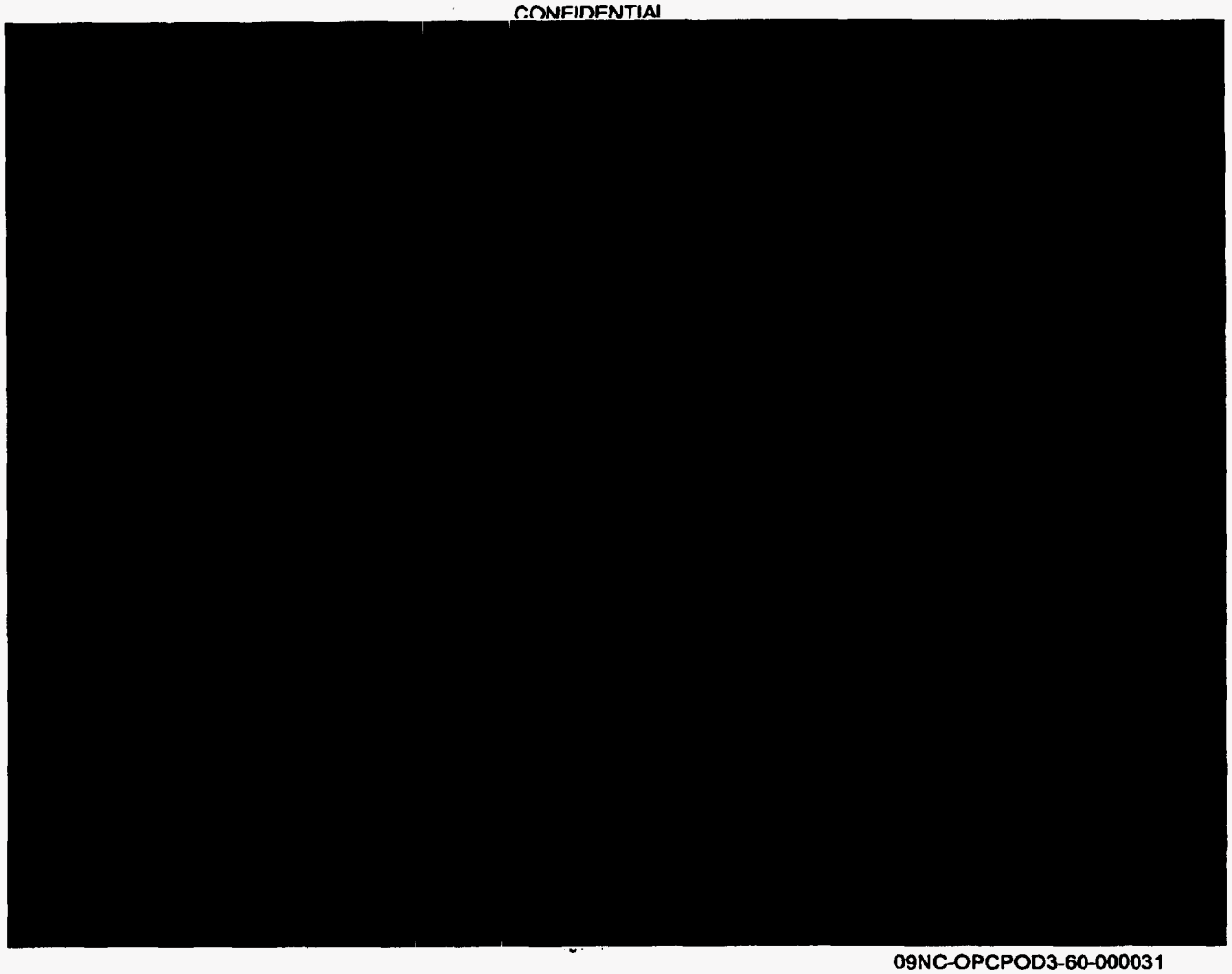

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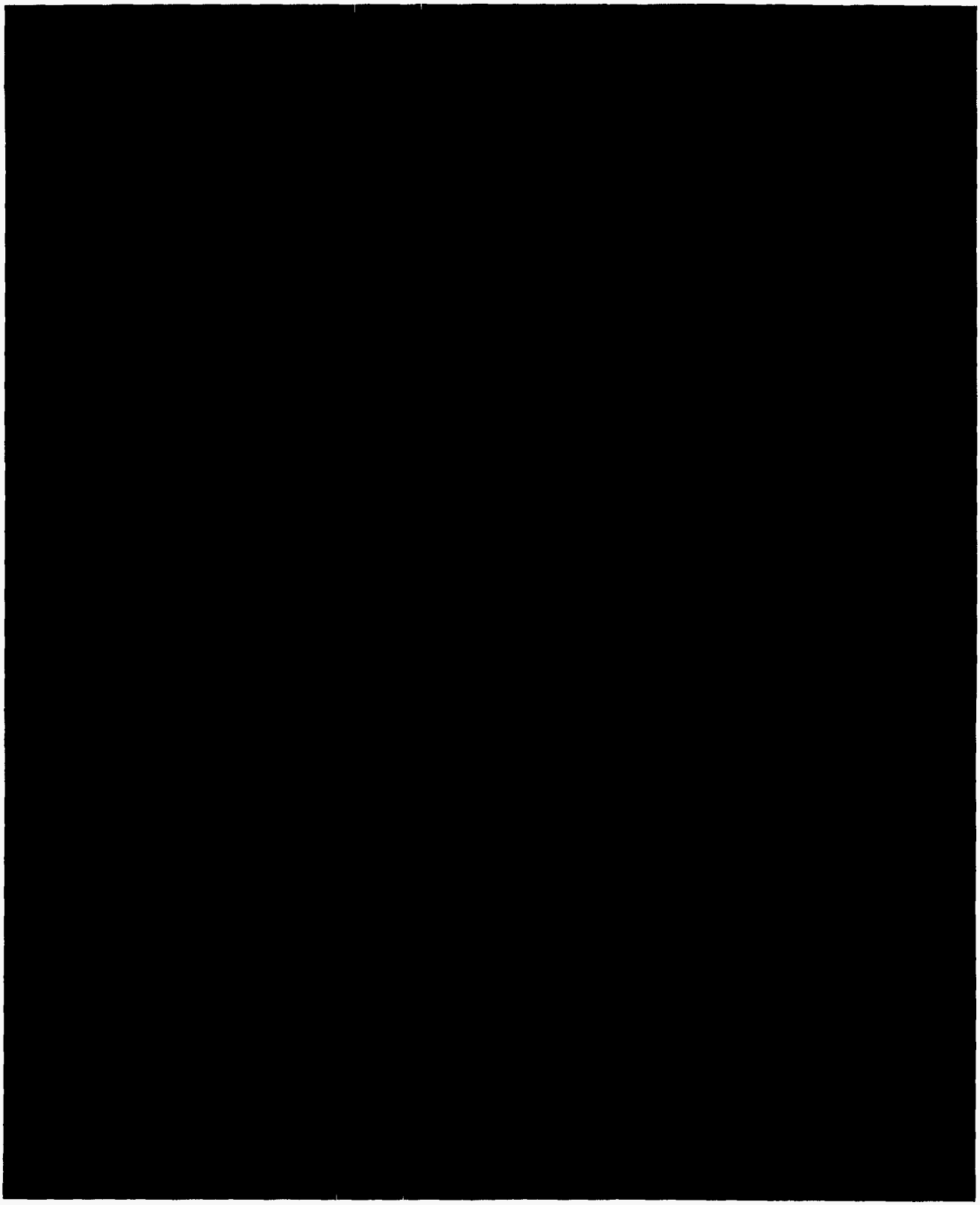

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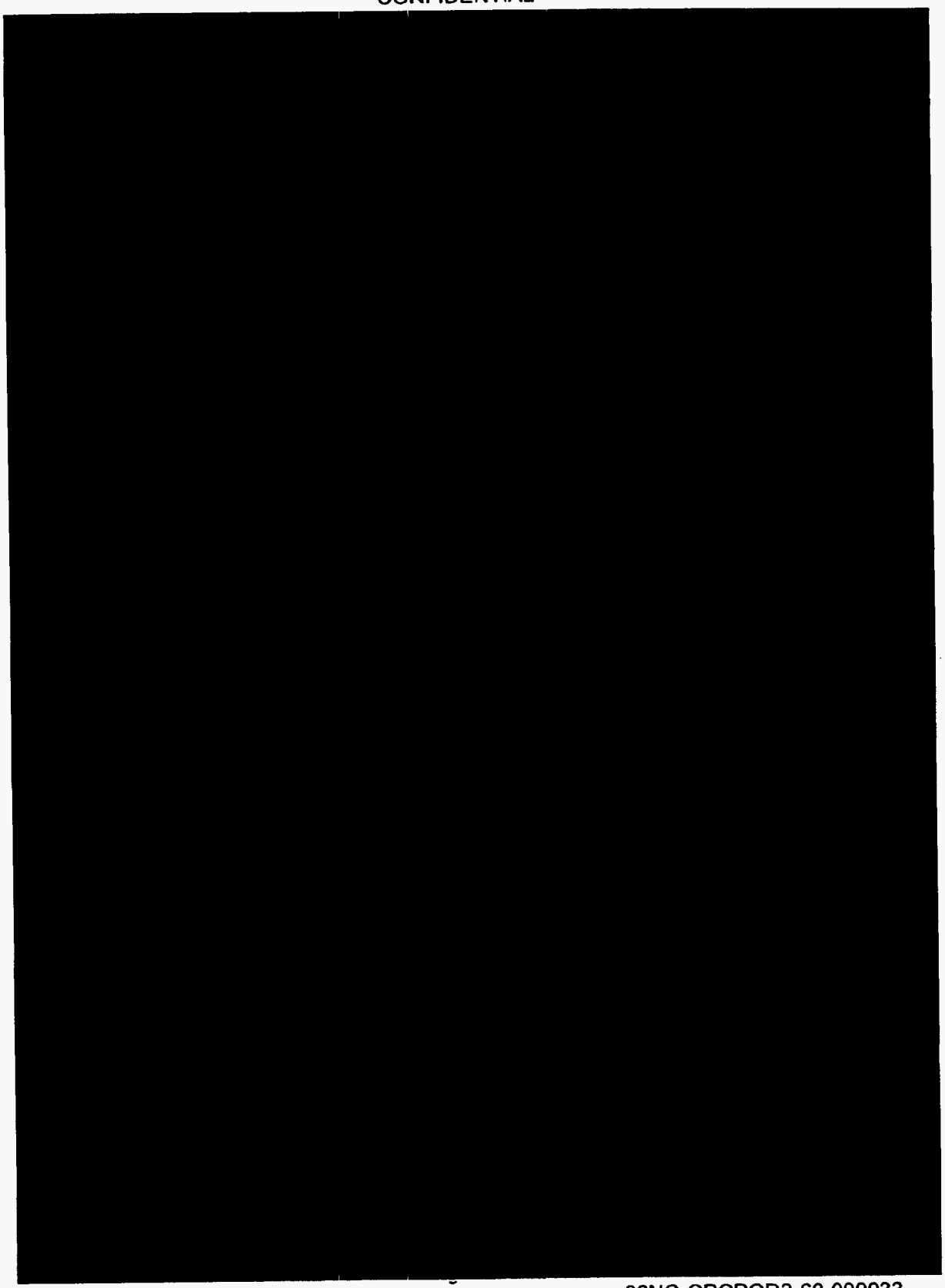

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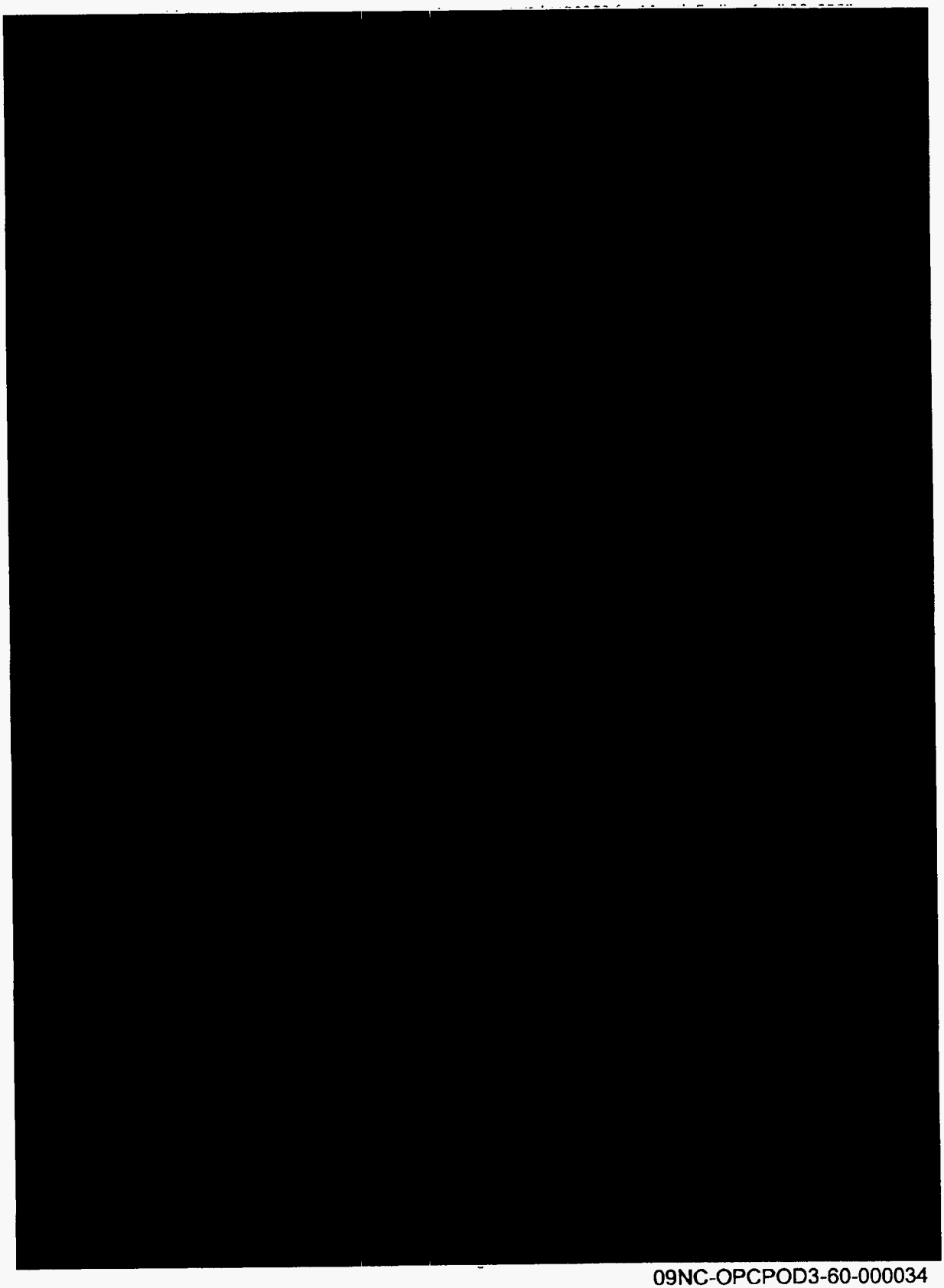

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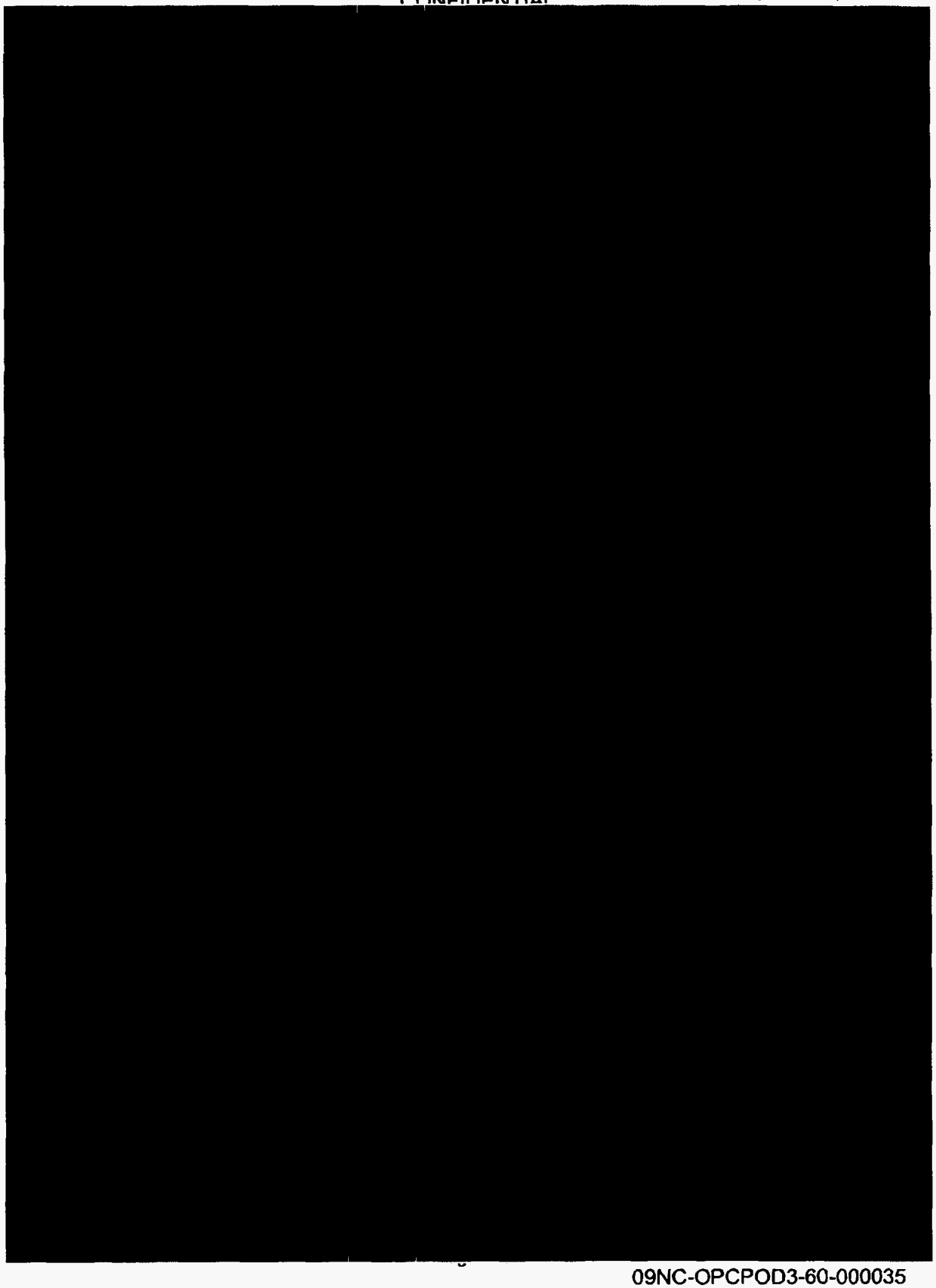

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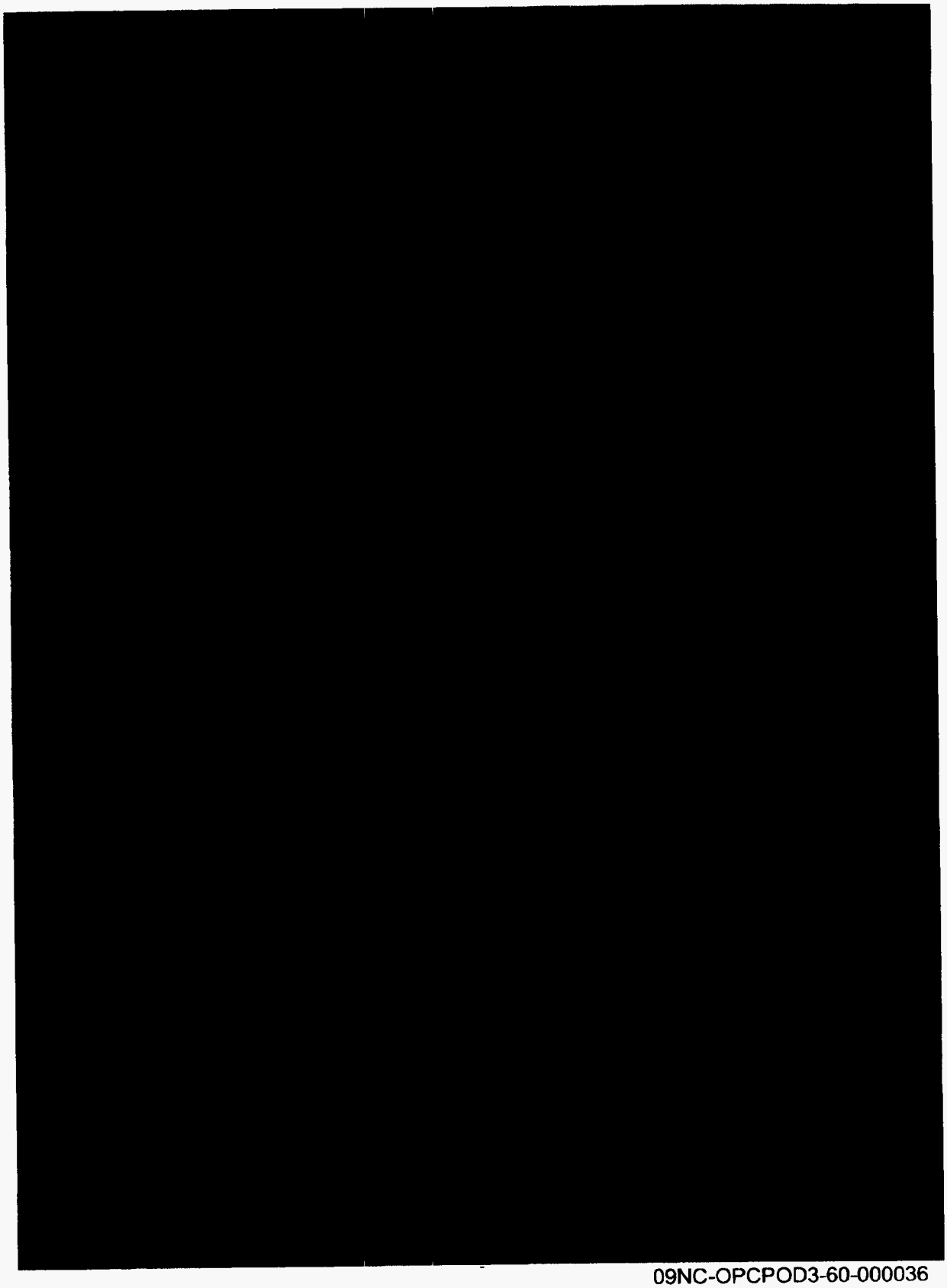

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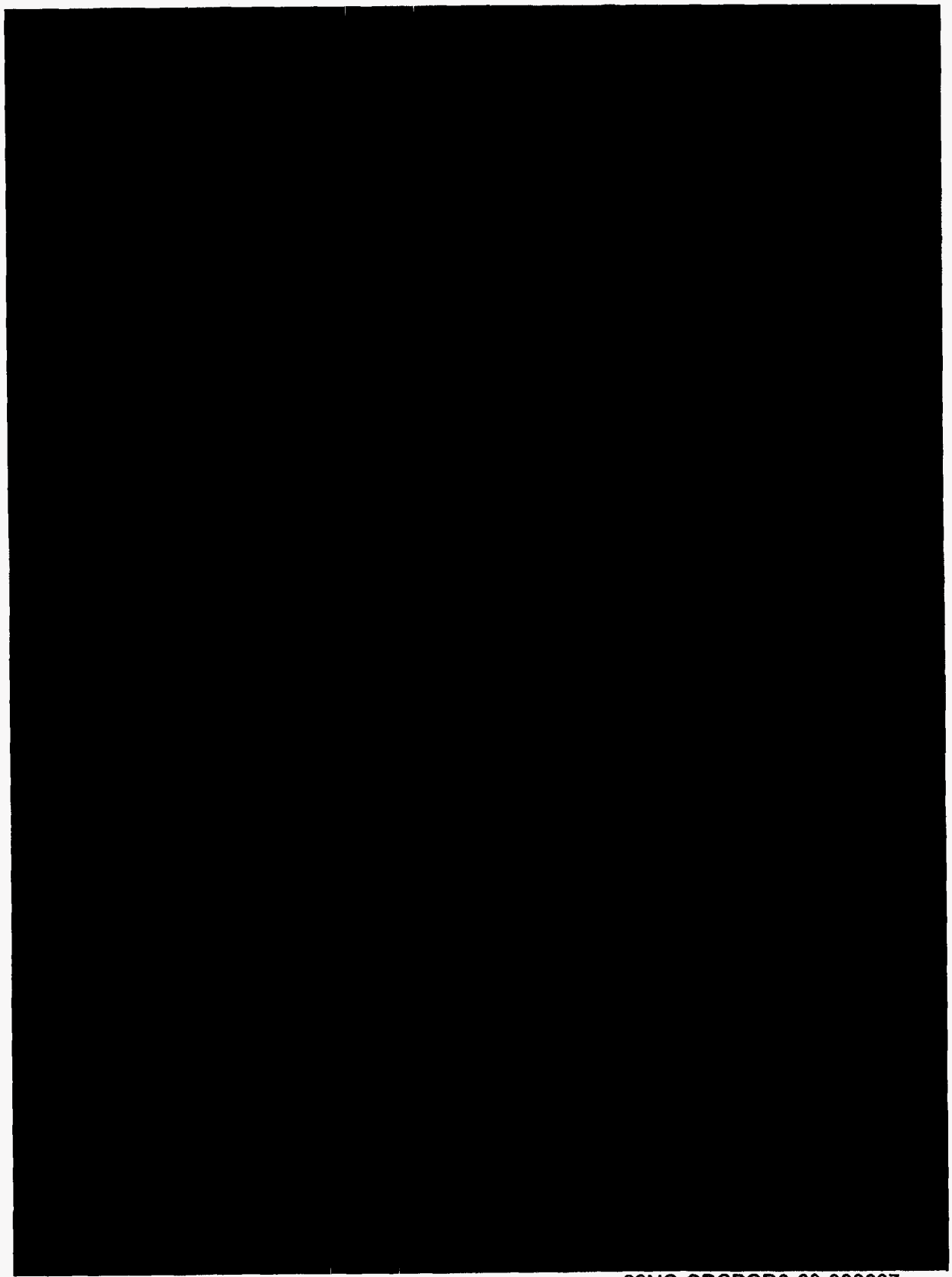

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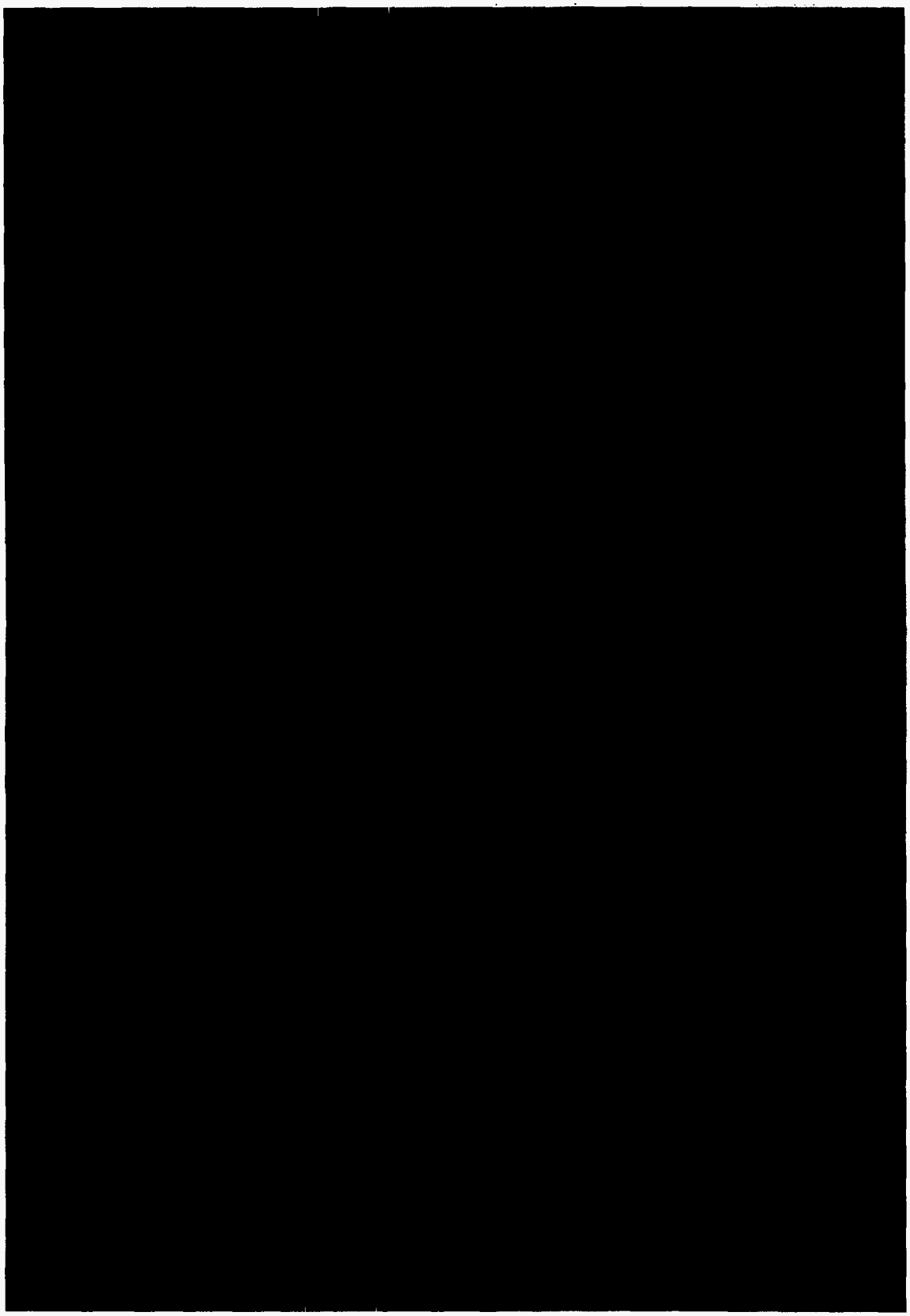

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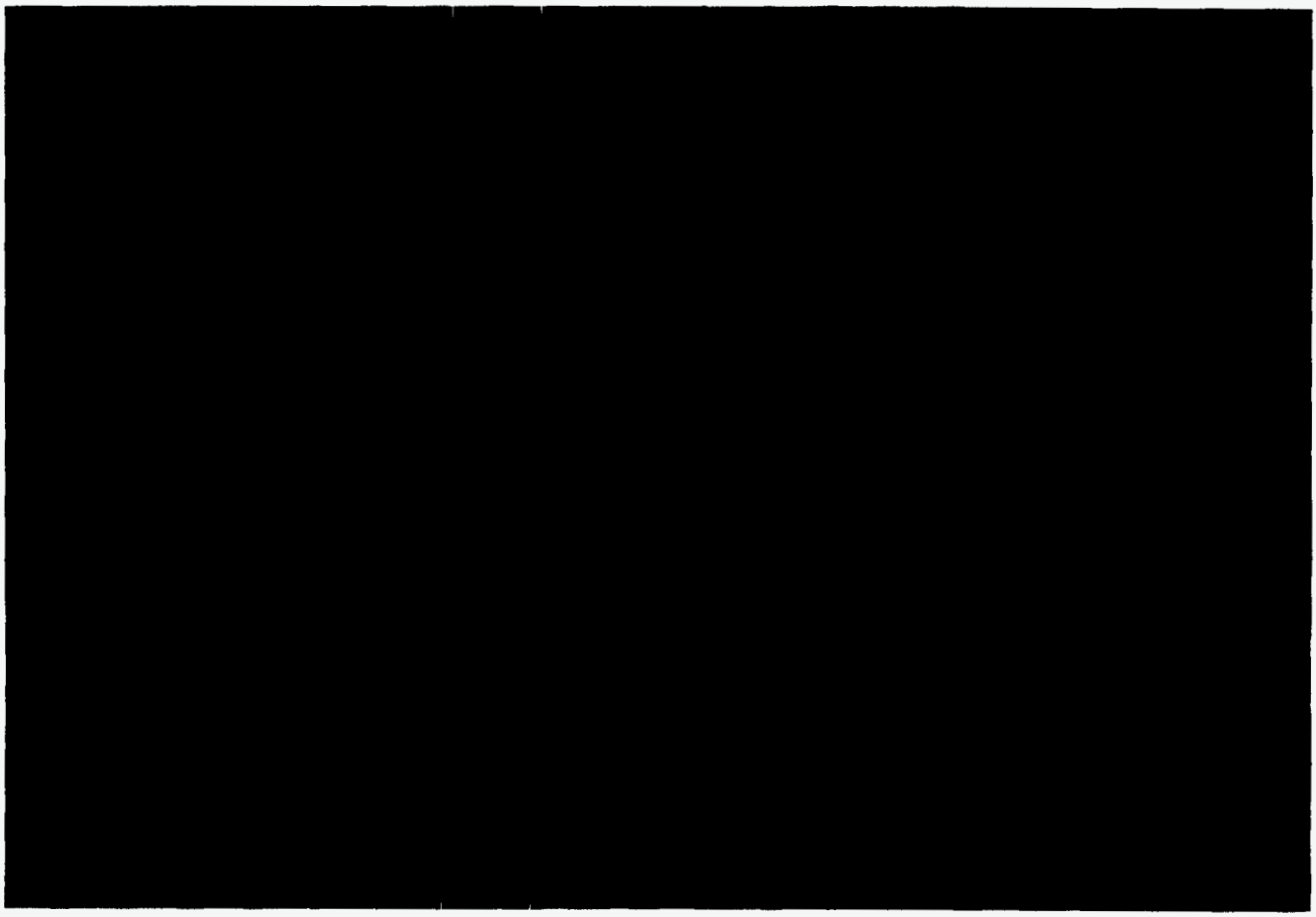

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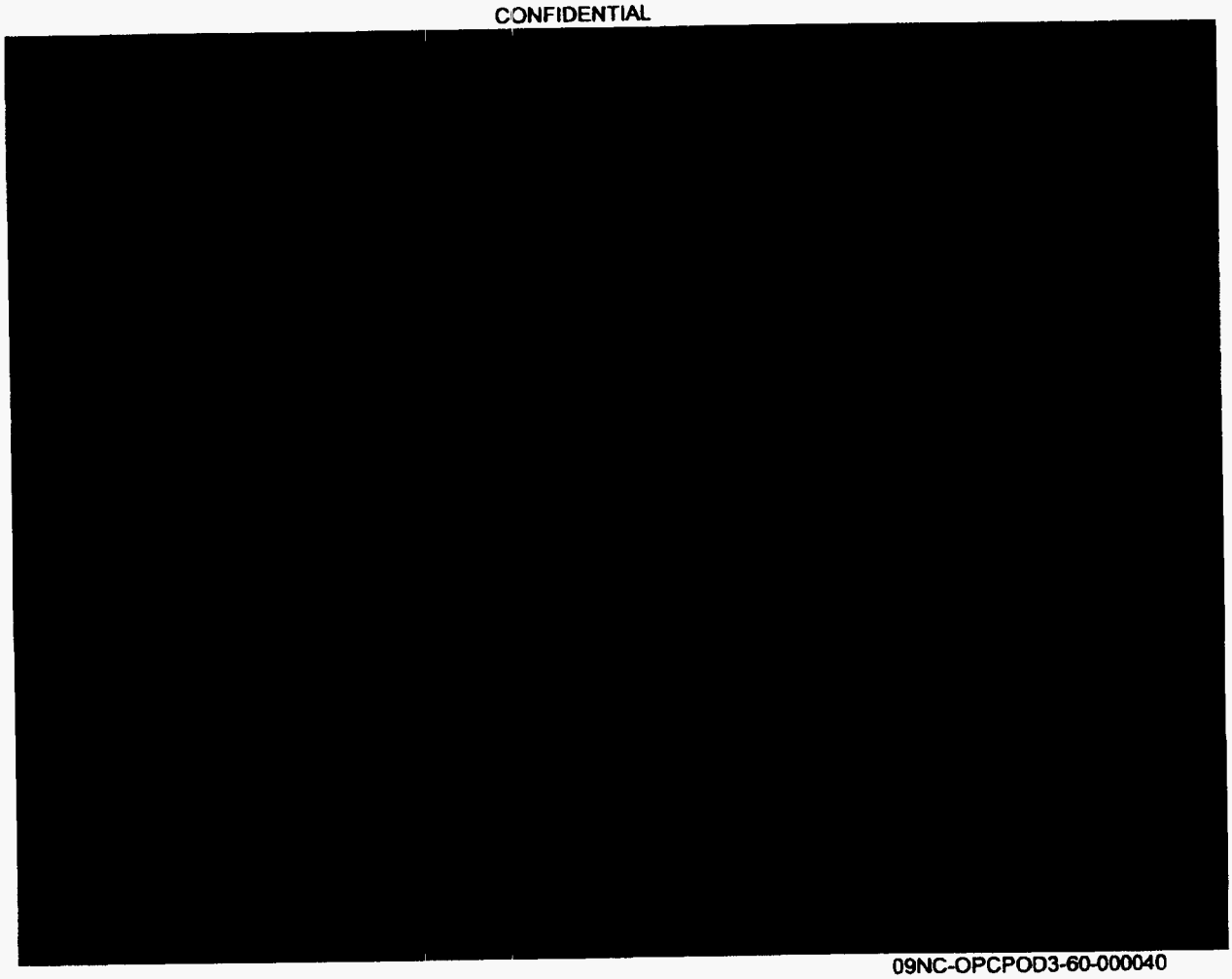

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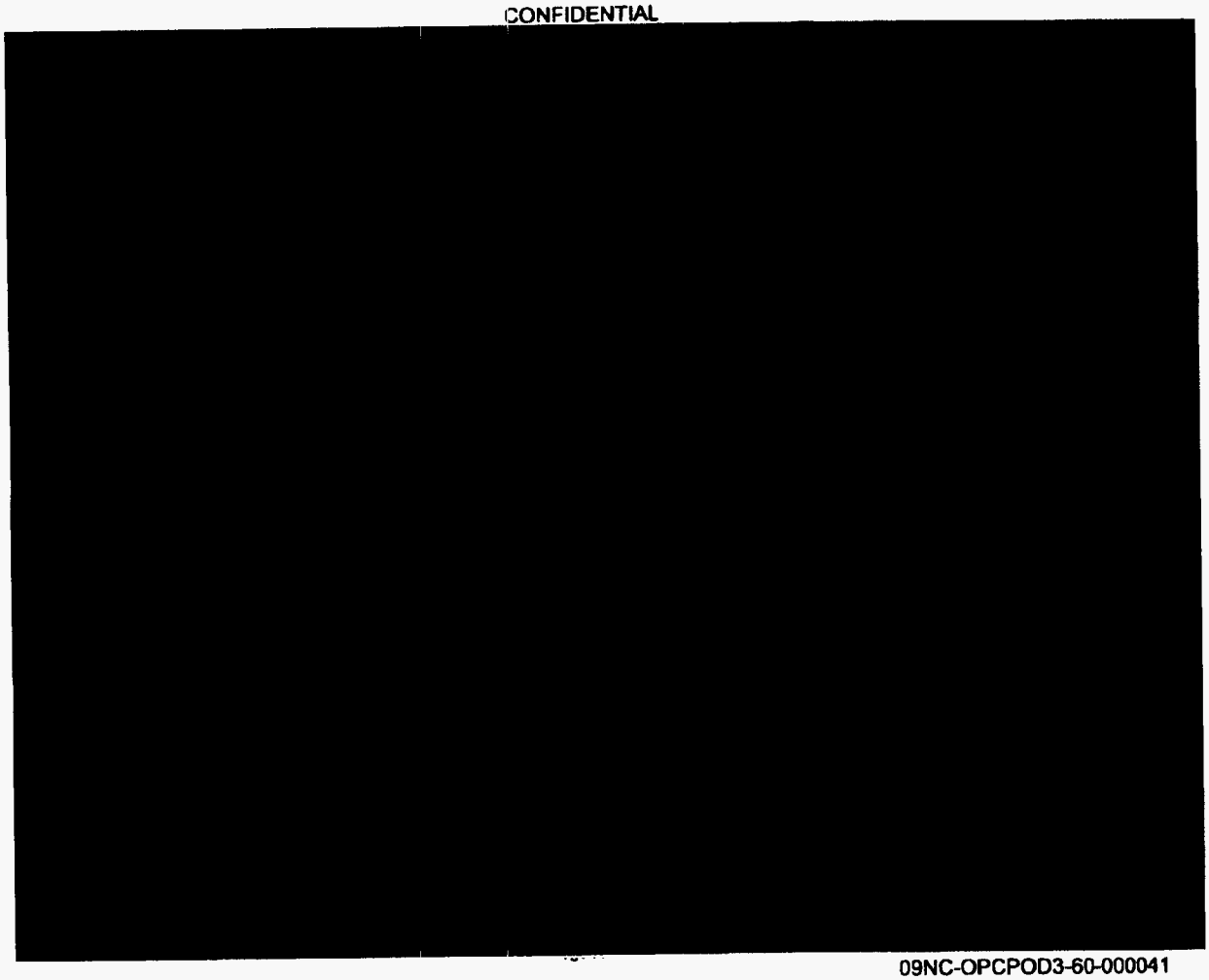

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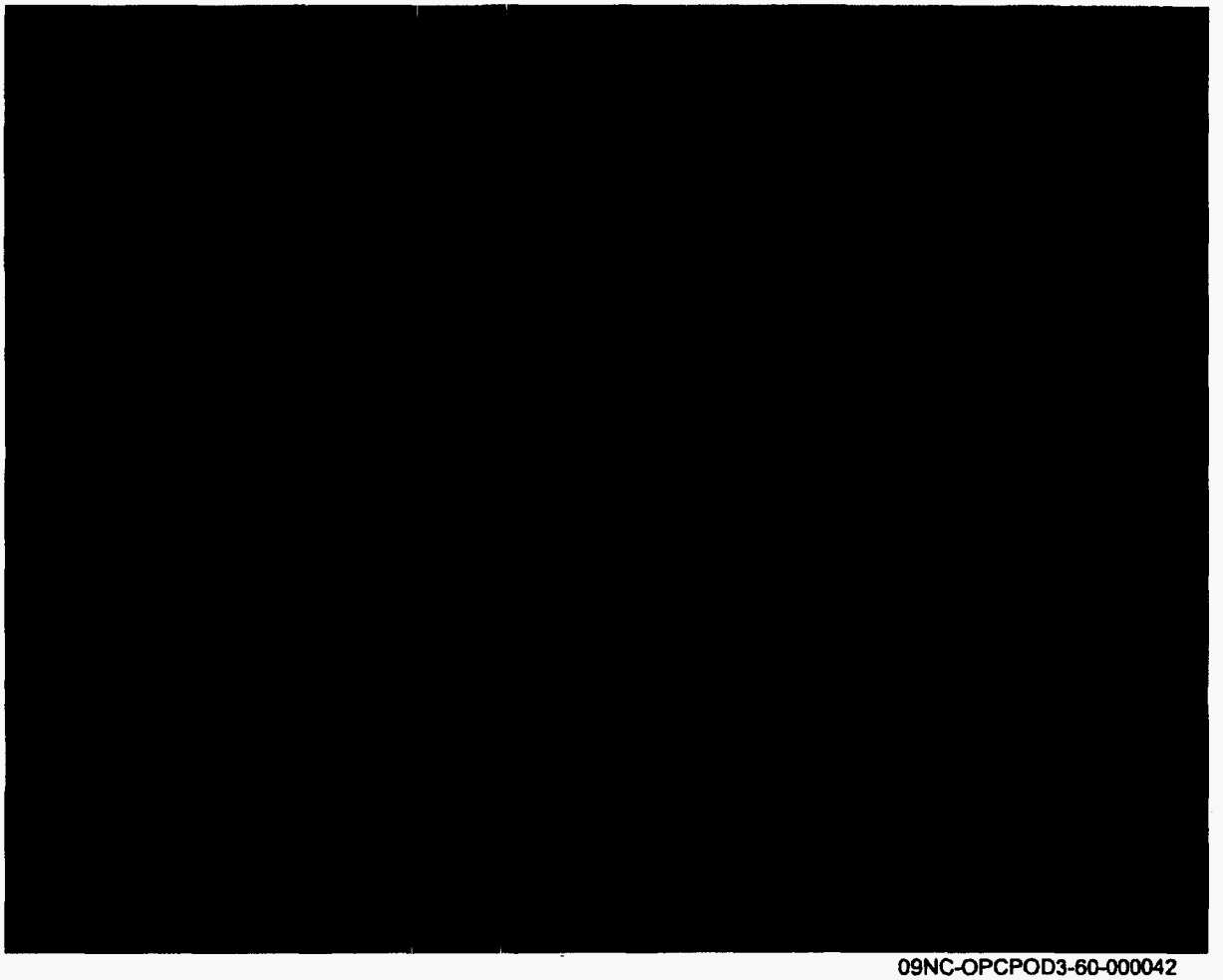

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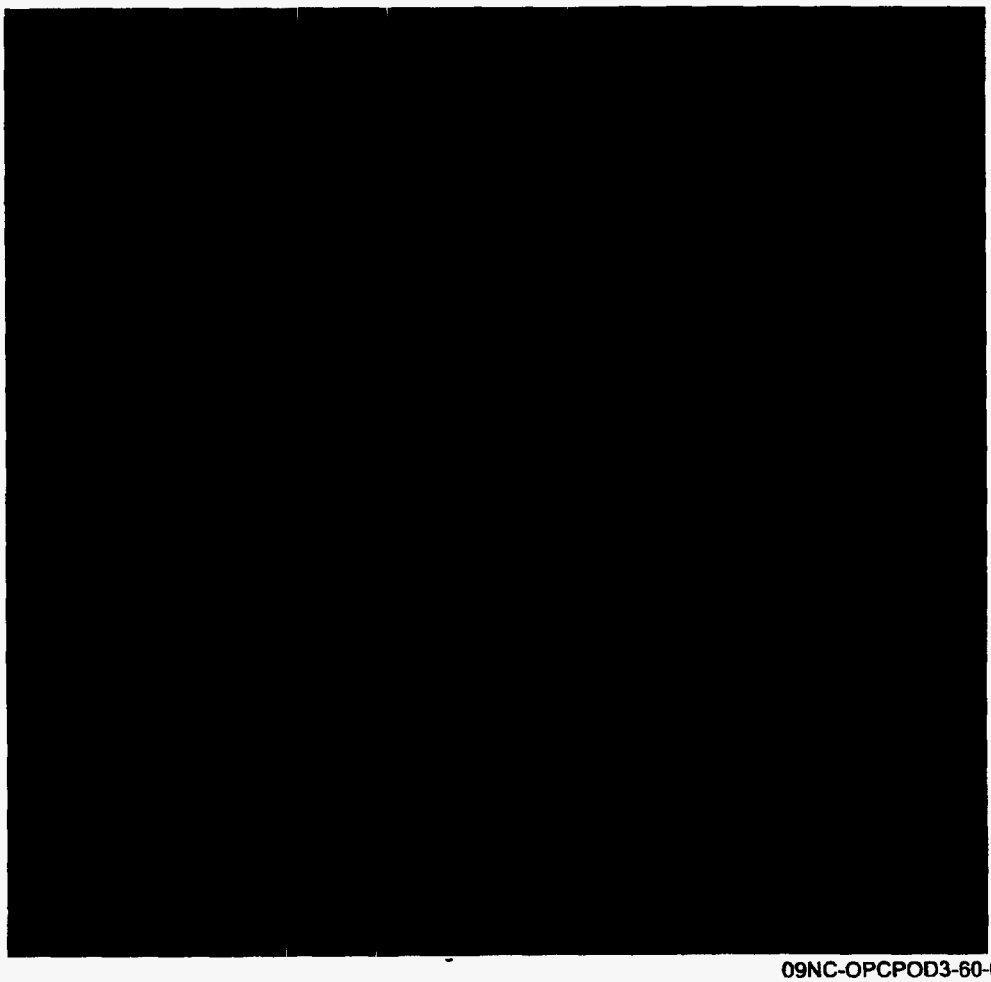

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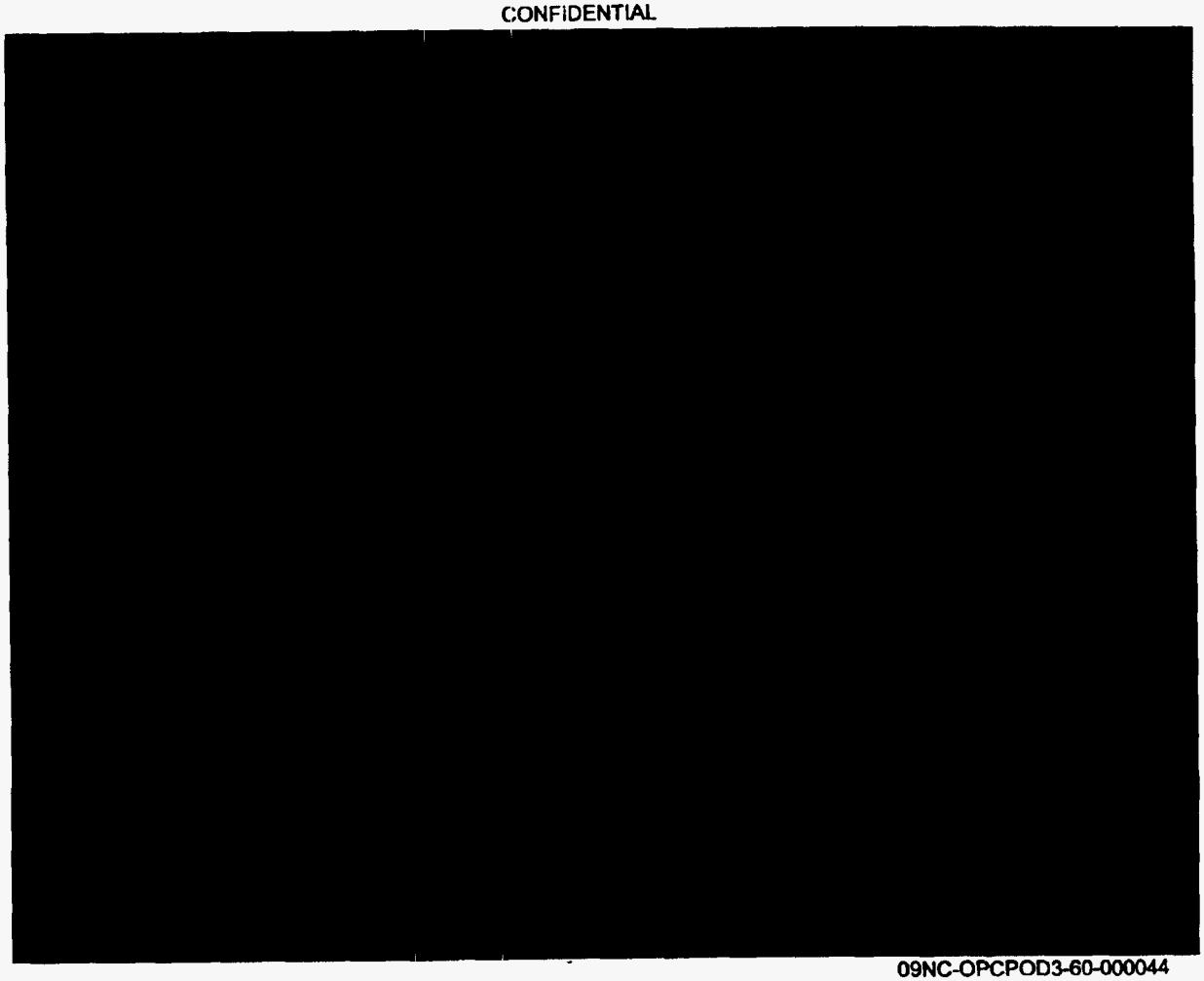

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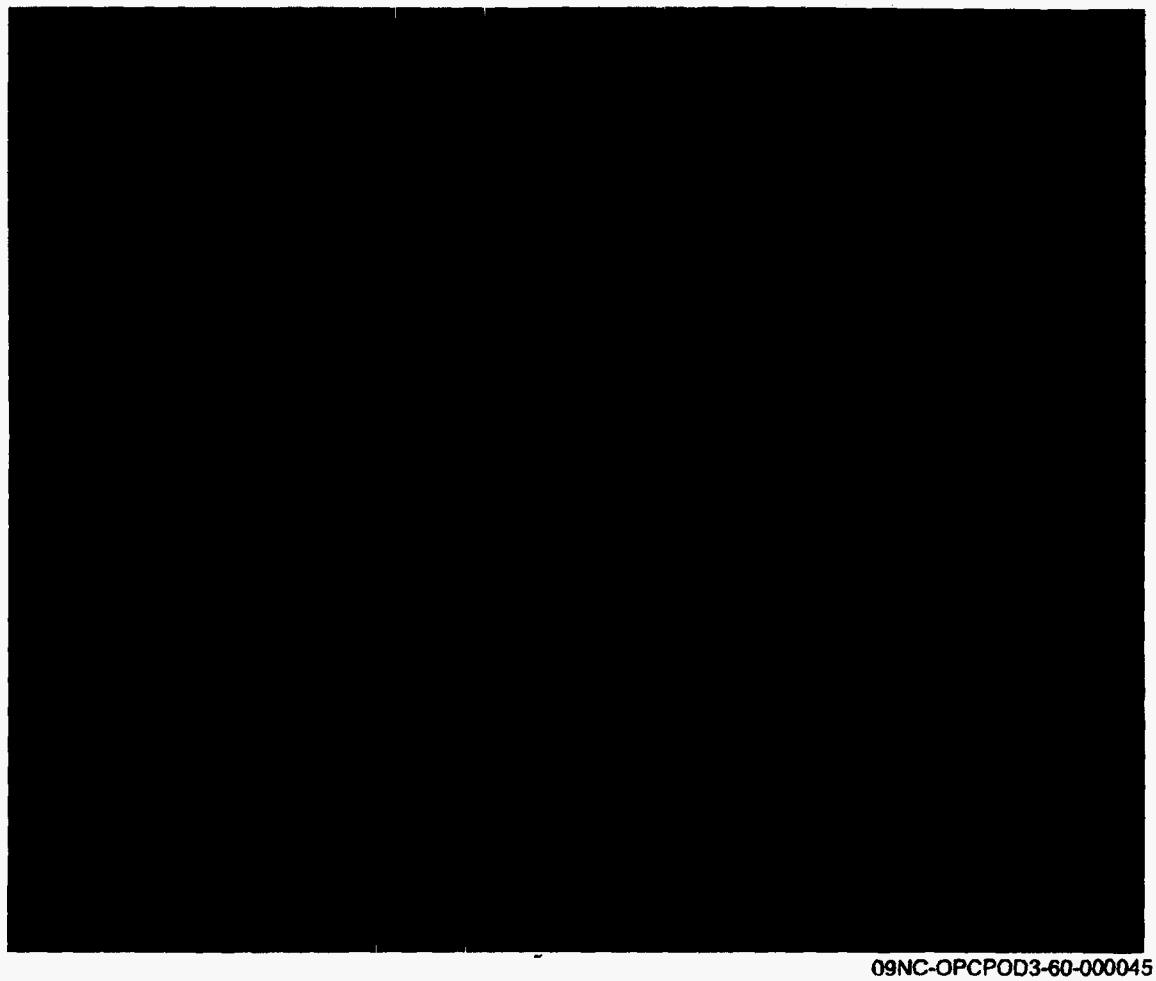

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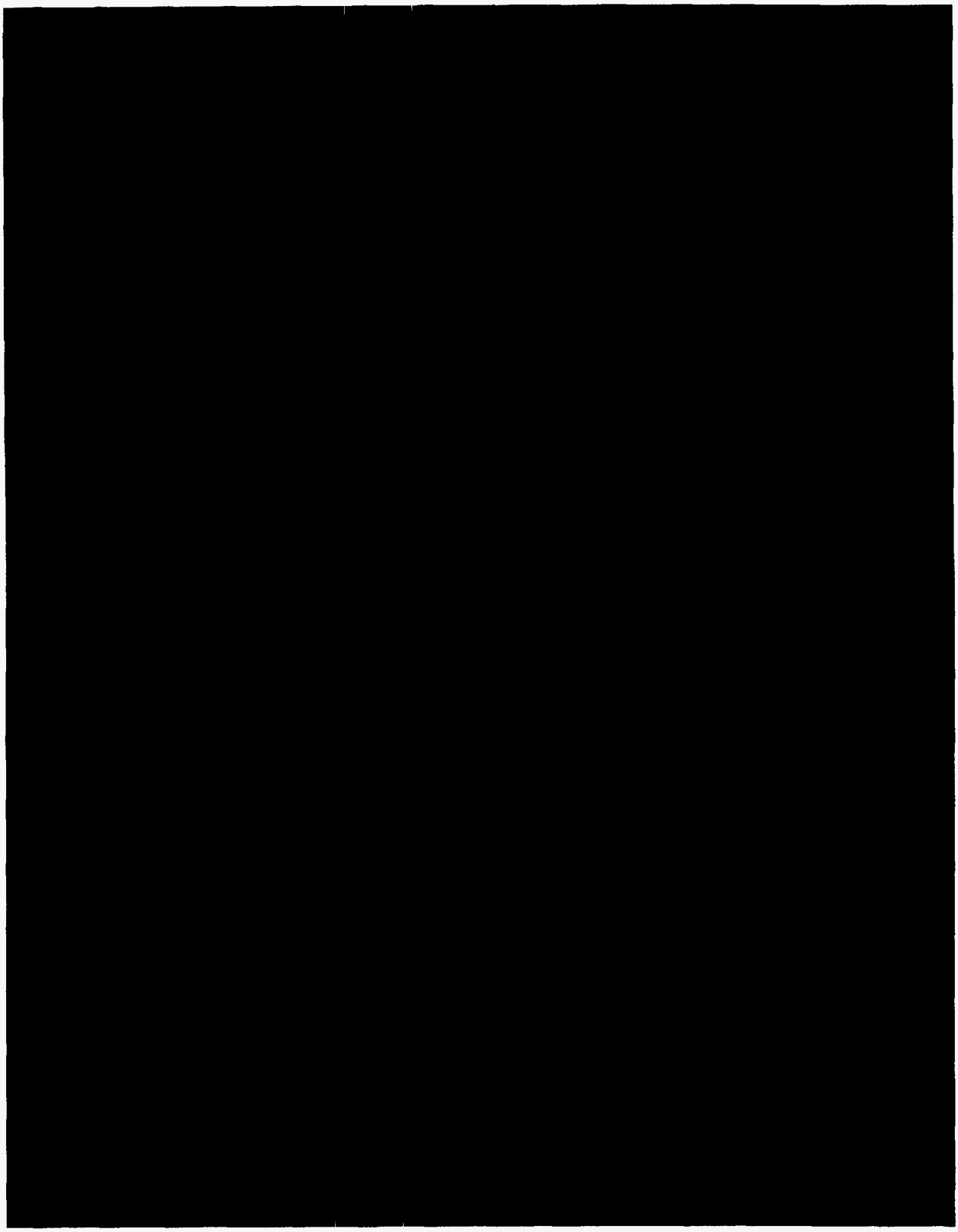

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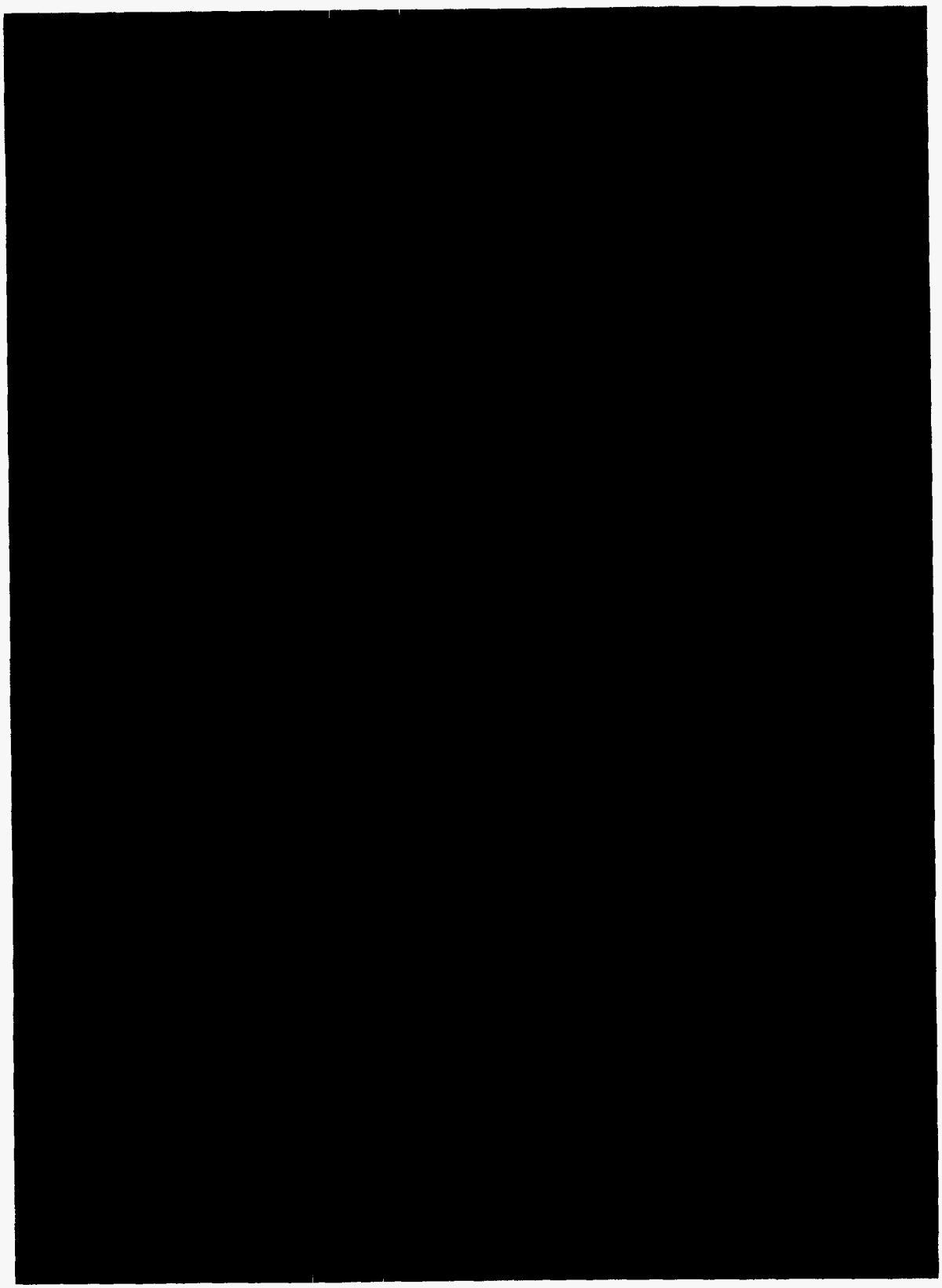

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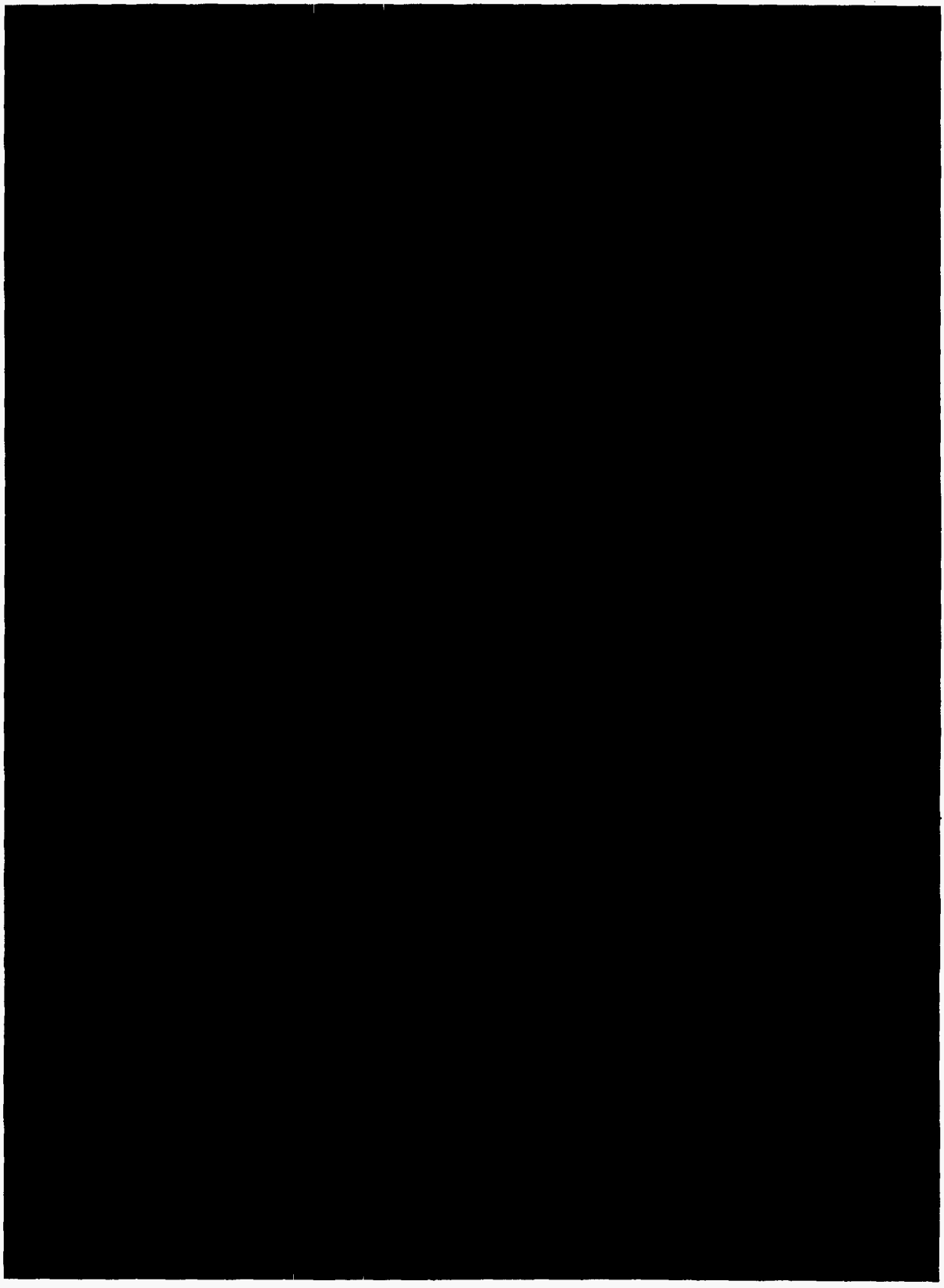

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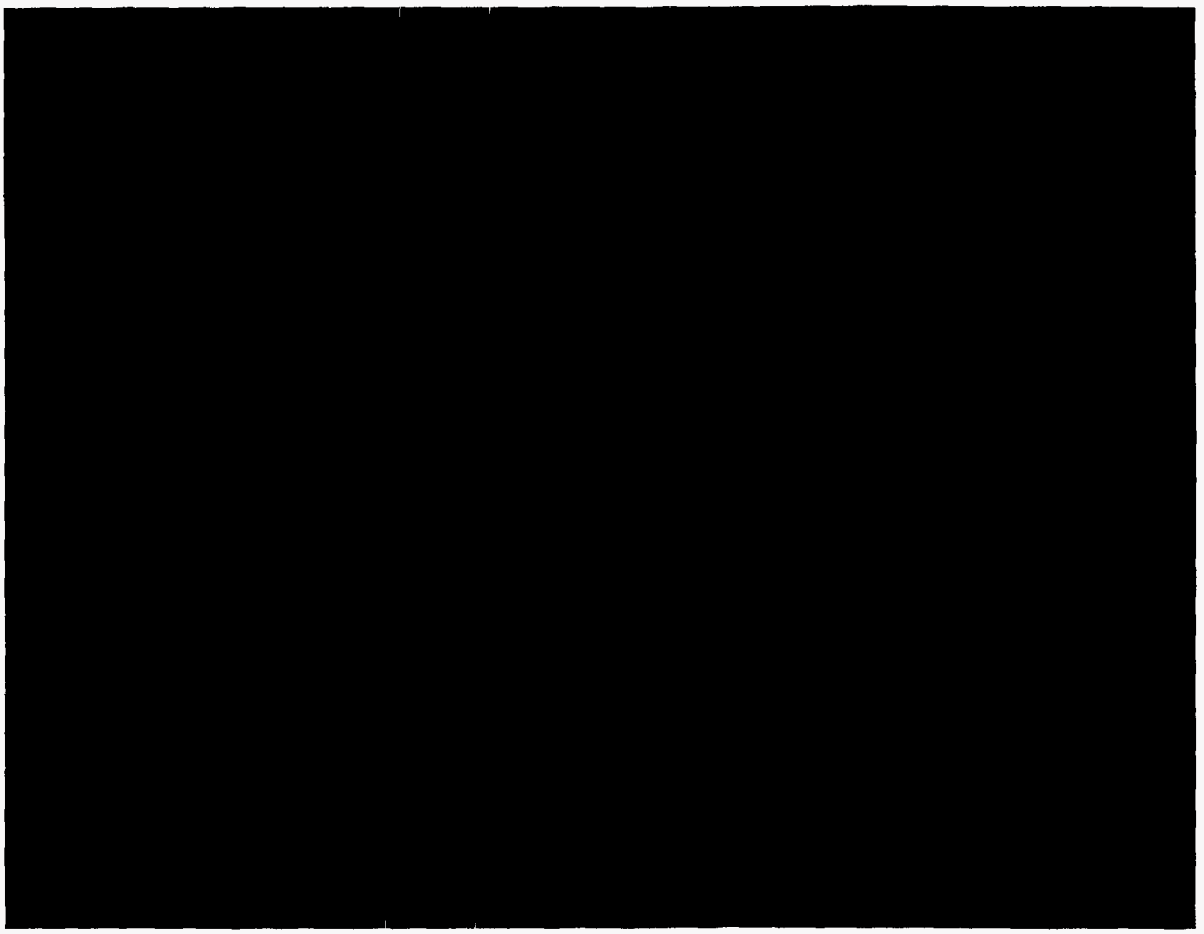

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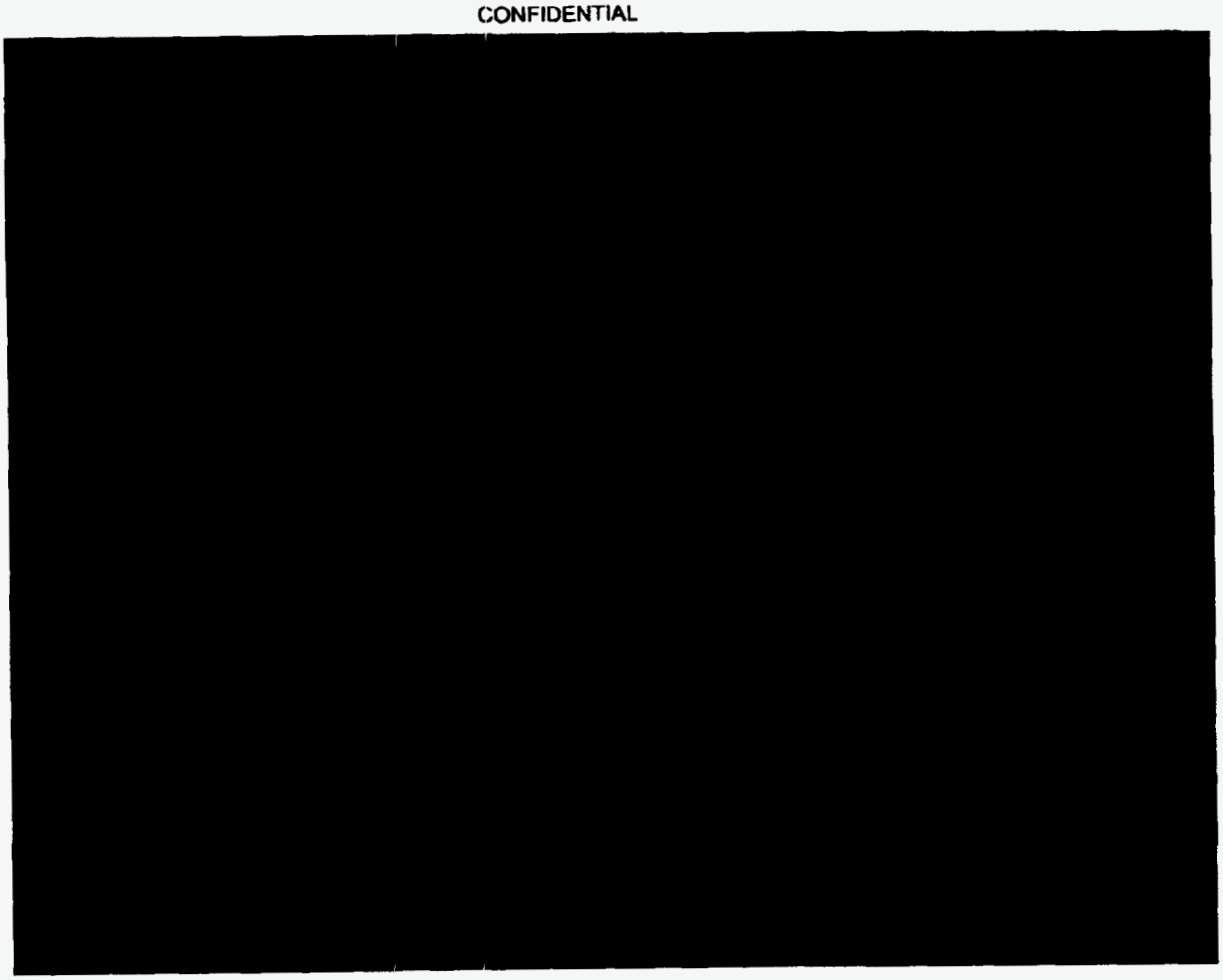

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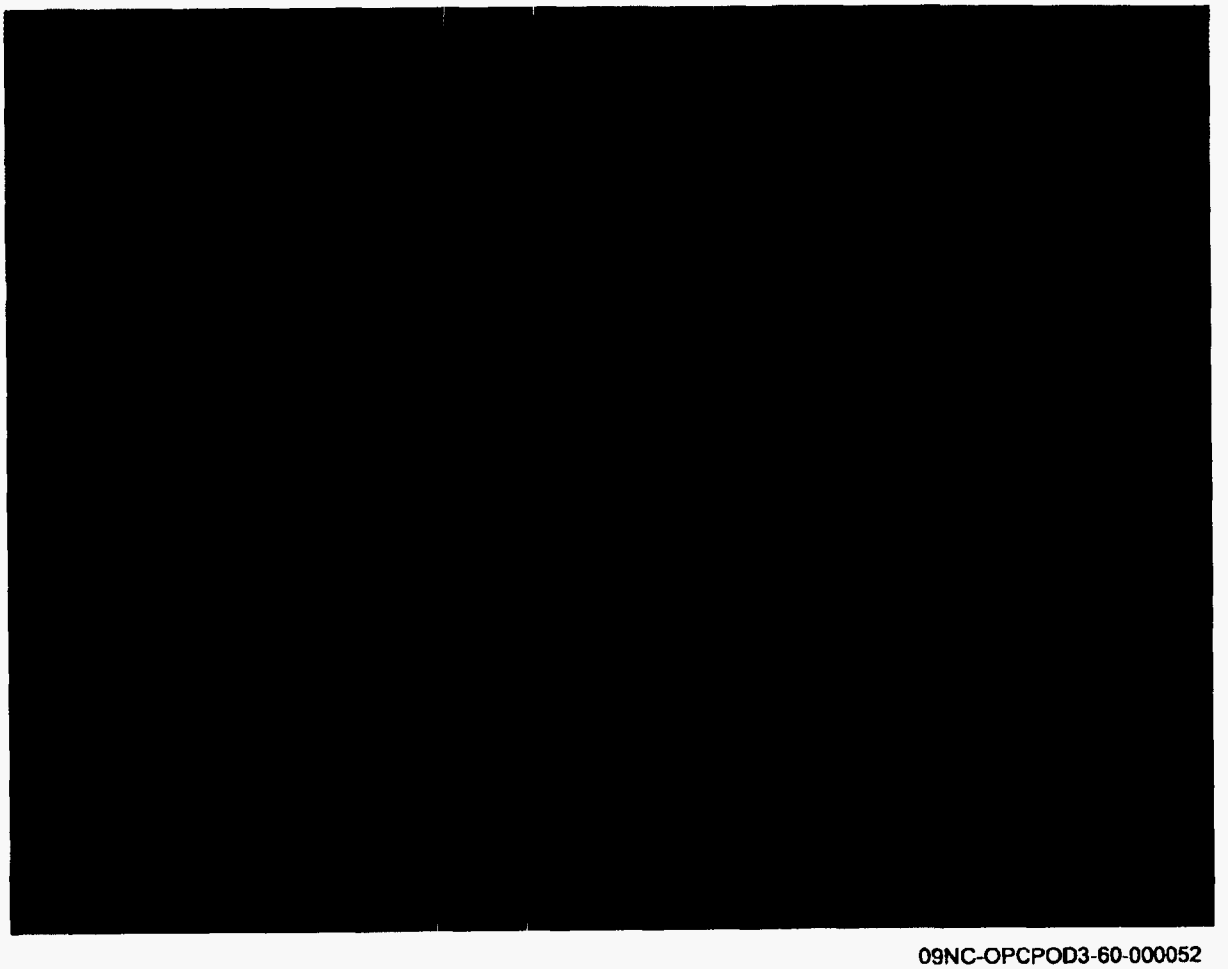

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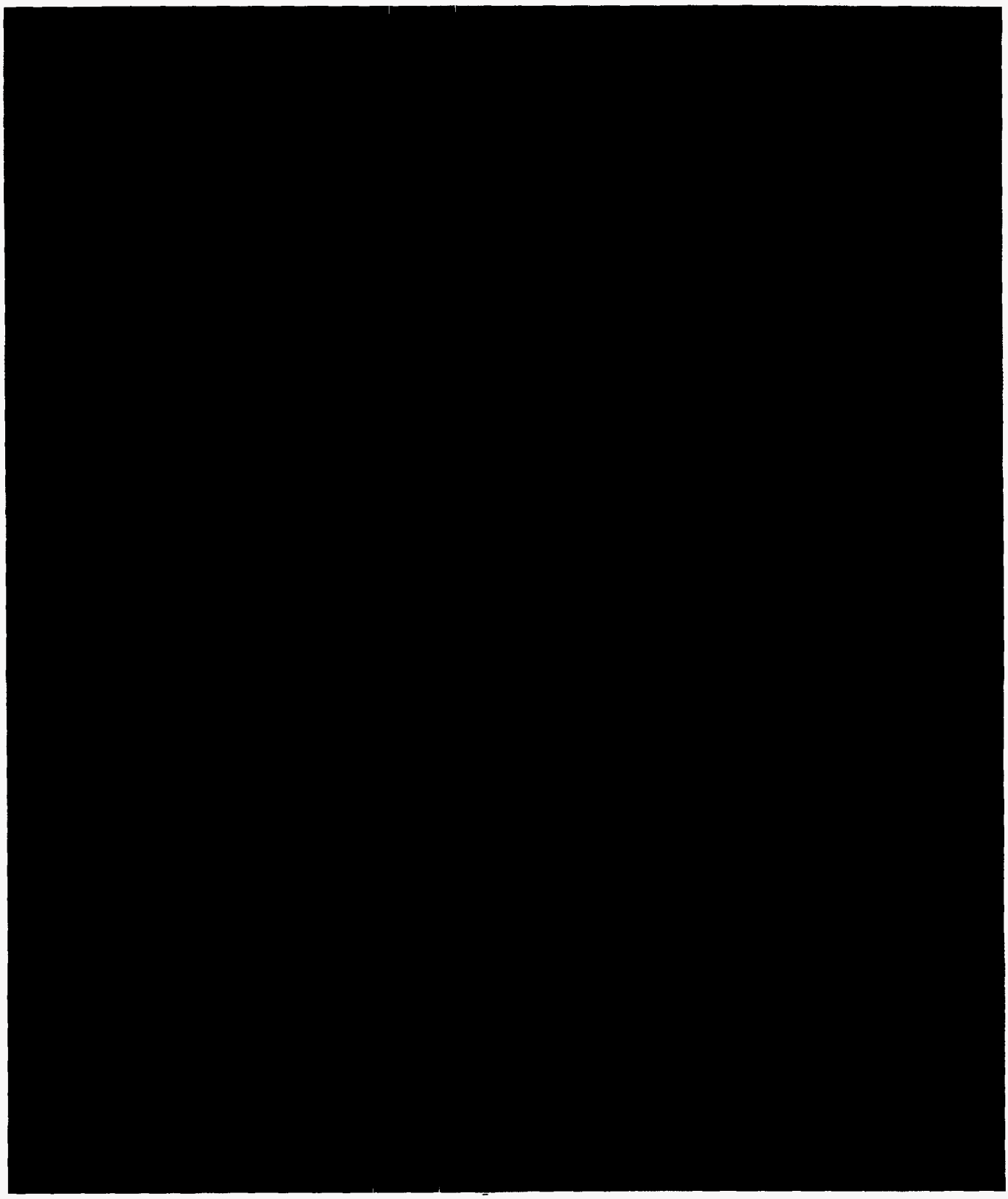

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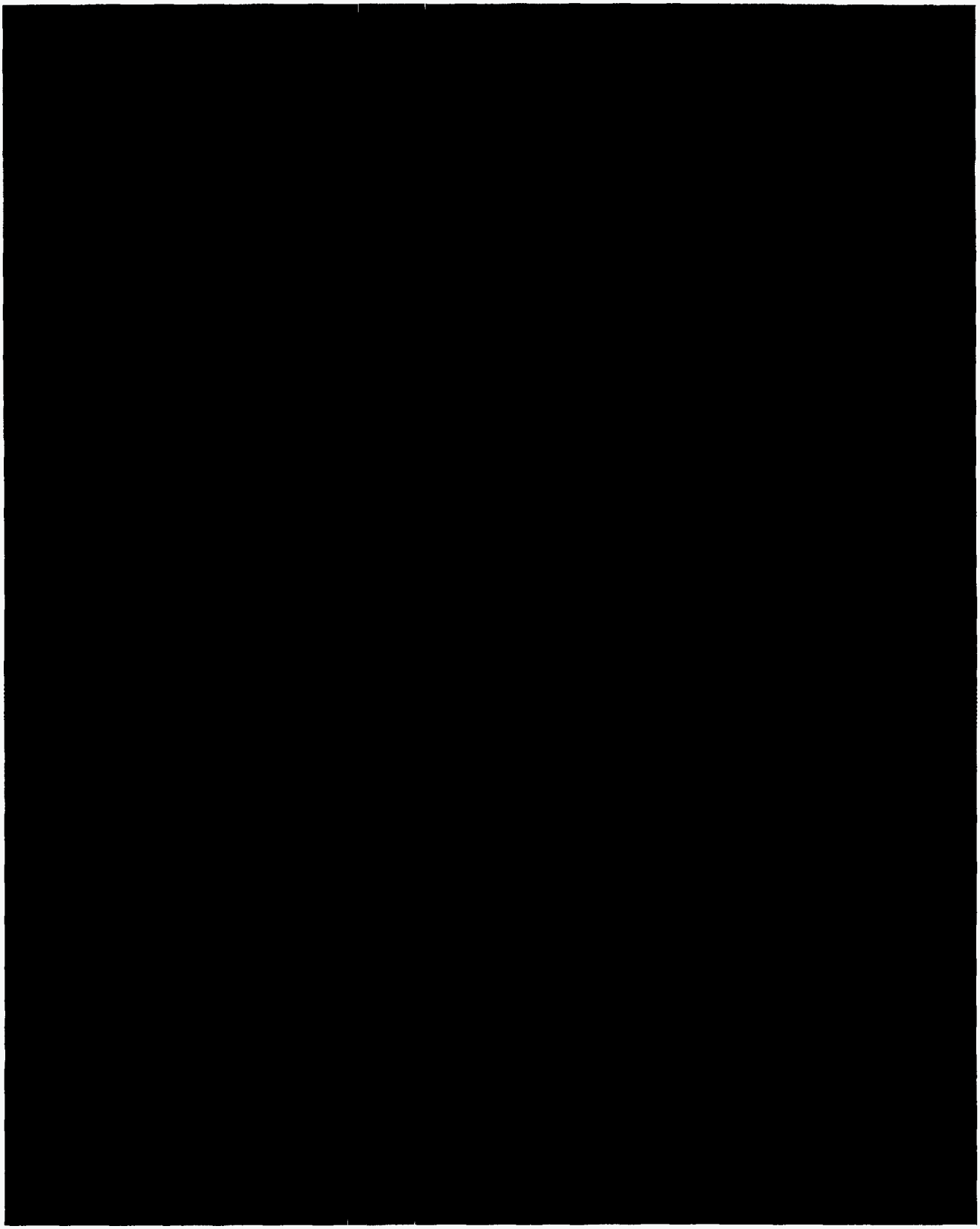

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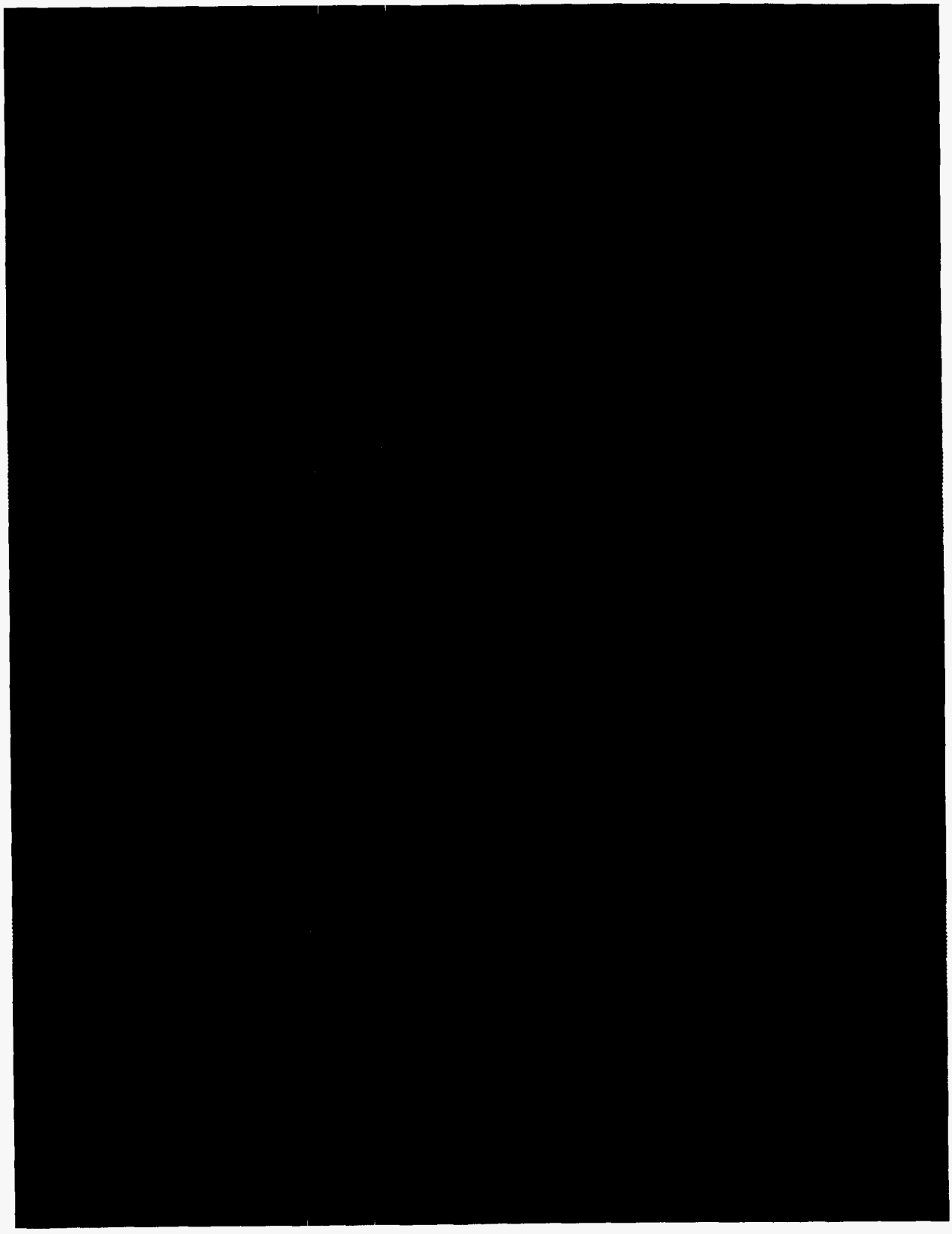

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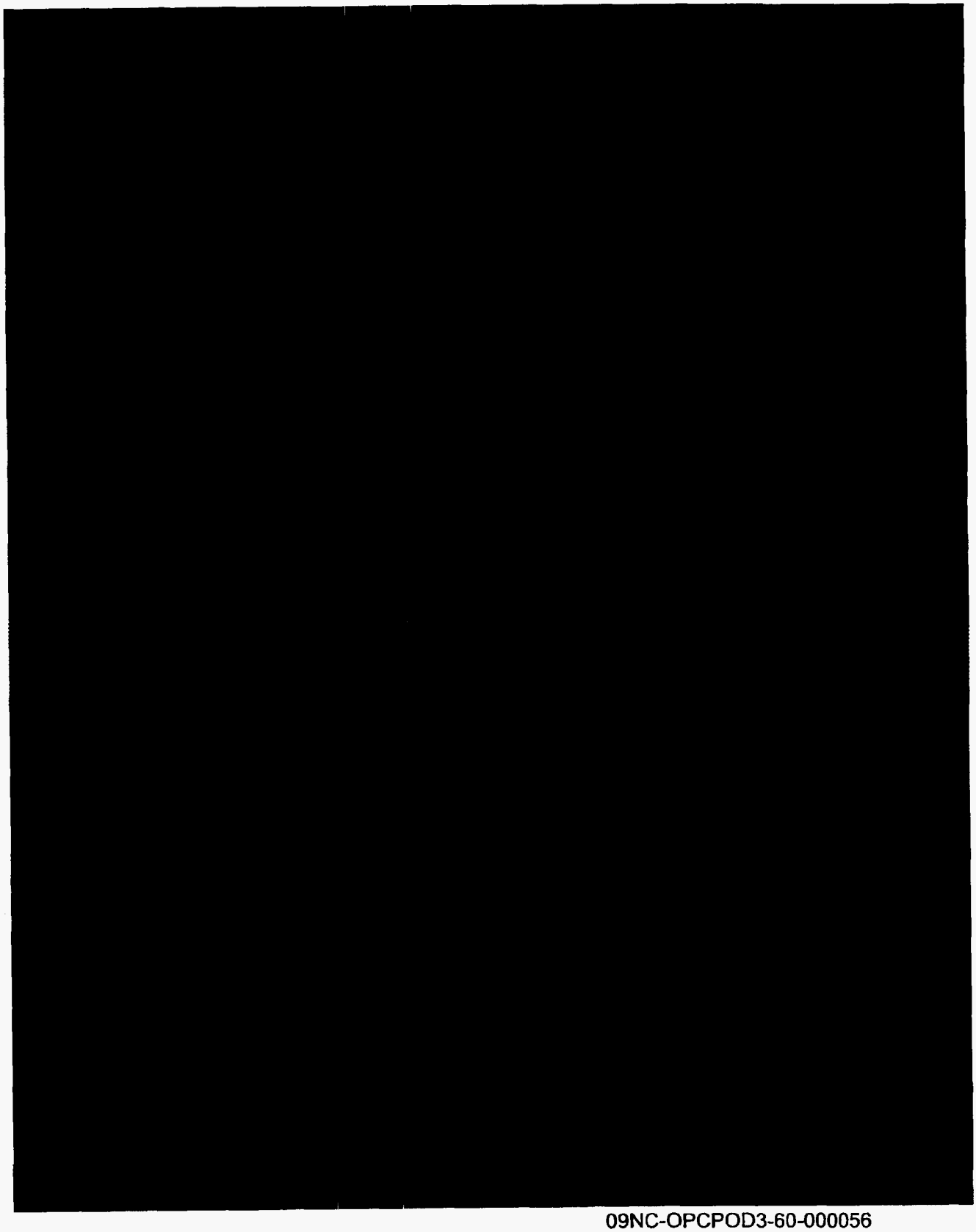

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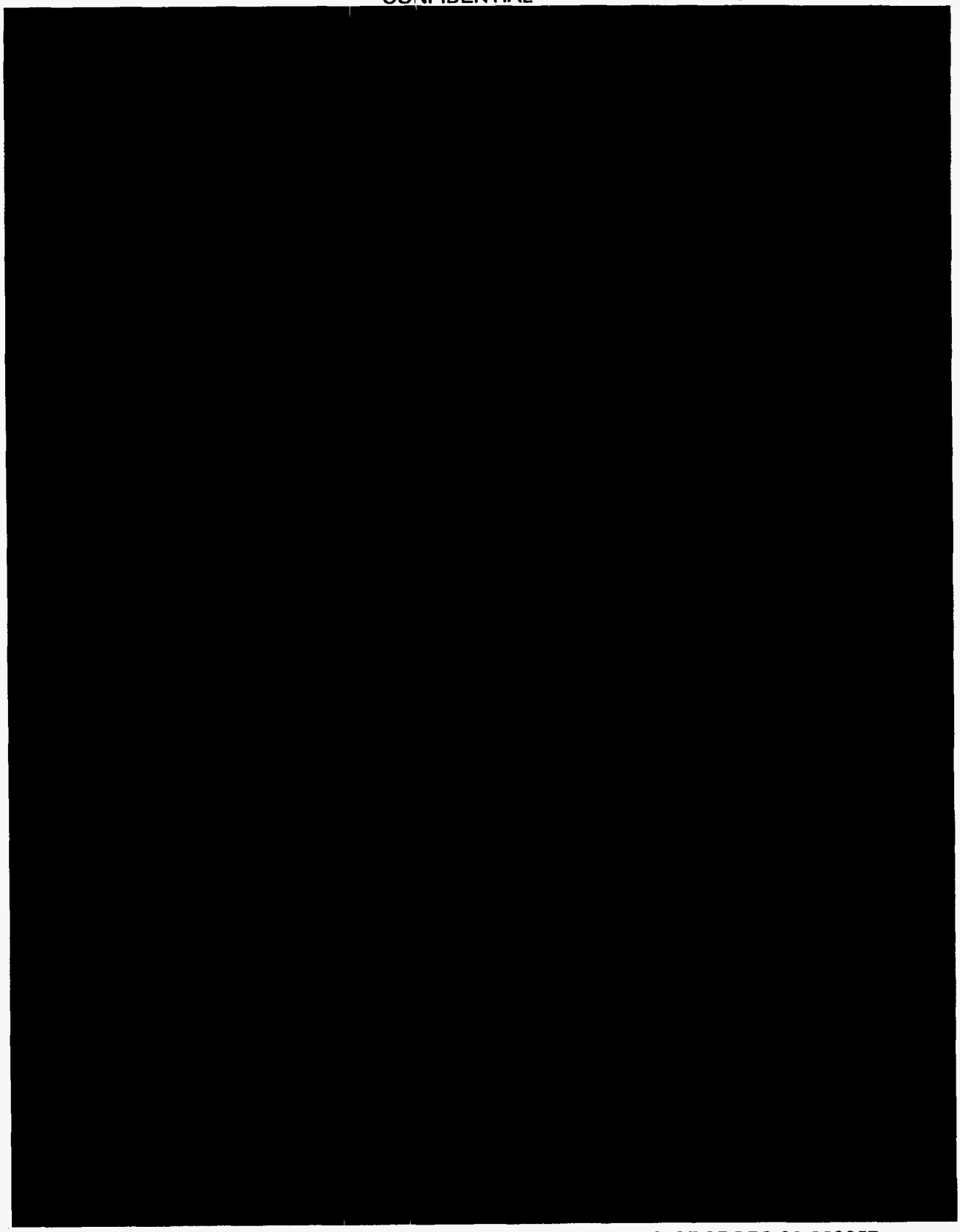

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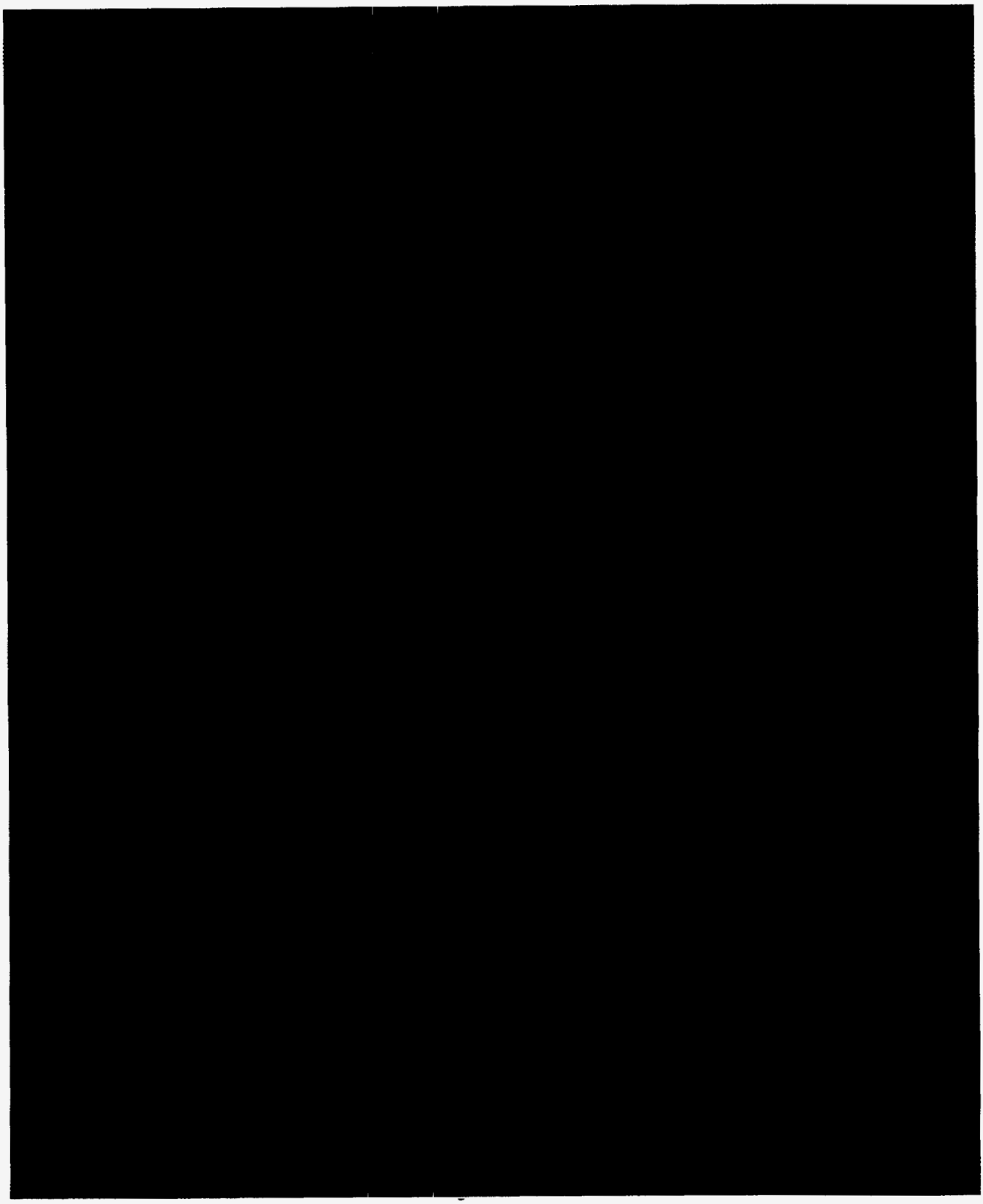

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Nuclear Cost Recovery Clause

DOCKET NO. 090009
Submitted for filing:
May 1, 2009

CONFIDENTIAL

DIRECT TESTIMONY OF GARRY MILLER
IN SUPPORT OF ACTUAL/ESTIMATED AND PROJECTED COSTS

ON BEHALF OF
PROGRESS ENERGY FLORIDA

Company. There will be a schedule shift, but there is no reason now to believe that the SCA, COL, or any other permit needed for the LNP will not be issued and, therefore, the Company is confident the LNP can be completed.

Additionally, the essential reasons the Company selected the LNP to meet customer needs for future generation capacity have not fundamentally changed. PEF continues to need base load capacity in the future and new, advanced-design nuclear power remains the best available technology to provide reliable, base load electric service and to make significant reductions in greenhouse gas emissions. PEF and Florida continue to need a more diverse energy portfolio to reduce their reliance on fossil fuels such as coal, natural gas, and oil that can be volatile in price, subject to supply disruptions, and susceptible to foreign government and market influences. The LNP, accordingly, continues to be the best base load generation option, taking into account all the reasons PEF committed to the project in the first place.

Q. Does the project remain feasible despite the schedule shift?

A. Yes, it does. The Company has analyzed the schedule shift, and it remains committed to the LNP to bring new nuclear generation to the State of Florida and its customers. Shifting the project for this time period is a reasonable and prudent course of action, given the unexpected events that have transpired.

Crystal River Unit 3

Extended Power Uprate

Integrated Project Plan

MASTER NUMBER: 20058849

Sponsoring Business Unit:	Nuclear Engineering
Funding Legal Entity:	Progress Energy Florida
Date Prepared:	March 02, 2009

Treasury Control No.	**20061181**

Key Project Contacts:

Role, Department / Group	Name	Phone No.
Sponsor, VP Nuclear Engineering	Joseph Donahue	770-3638
GM-NP	Steve Huntington	240-4800
Major Projects Manager, EPU	Steve Huntington	240-4752
EPU Engineering Superintendant,	Ted Williams	240-4356
EPU Implementation Superintendant	Paul Ingersoll	240-1076
Regulatory	TBD	240-4983
Project Controls	Terry Hobbs	240-4746

Plan Revision Control

Rev No.	Primary Author(s)	Revision Description	Rev Date
0	Ted Williams	Initial publication	3/18/2008
0	Mark Hickman	Initial Publication	3/18/2008
Updated	Steve Huntington	Update for 2009 March SMC Review	3/3/2009

The following sections were updated:

Key Project Contacts
Plan Revision Control
Review & Approval
Project Overview/Recommendation
NP EPU Milestone Variance Report
Funding Requirements & Update
Economic Evaluation
PLU Risk Status Report
Contracting & Procurement Strategy
Environmental Plan
External Stakeholders
Internal Stakeholders
Project Assurance Plan
Communication Plan/Next Steps

Review & Approval

This section contains formal sign-offs for both review & approval of the IPP. "Reviewing" applies to any party reviewing the IPP for accuracy & clarity, while "Approving" applies to those parties responsible for approving project milestone progression & funding.

Reviewing Party	Reviewing Position	Rev Reviewed	Signature	Date
T. Williams	Engineering Superintendant, EPU			
T. Hobbs	Manager, Major Projects Project Controls			3/24/09
J. Terry	SGR Project Manager			3/24/09
S. Huntington	Manager, Major Projects - EPU			3/31/09
J. Franke	Director Site Operations CR3			
L. Hatcher	Crystal River Plant Manager- Fossil			
J. Donahue	VP, Nuclear Engineering			3/31/09

Approving Party	Approving Position	Rev Approved	Signature	Date
Tom Sullivan	VP, Treasurer & CRO			
Jeff Corbett	Sr. VP Energy Delivery Carolinas			
Michael Lewis	Sr. VP Energy Delivery Florida		Michael W. Lewis	3/5/09
Jeff Lyash	President and CEO, PGN Florida			3/6/09
Lloyd Yates	President & CEO PGN Carolinas			
John McArthur	Sr. VP Corporate Relations &General Counsel			
Mark Mulhern	Sr. VP Finance			
Paula Sims	Sr. VP Power			
Jim Scarola	Sr. VP & CNO			
Peter Scott	President &CEO Service Co., CFO PGN			
William Johnson	Chairman, CEO, and President PGN			

Progress Energy

Crystal River Unit 3

Extended Power Uprate

MASTER NUMBER: 20058849

Approver	Supporting Position	Key Approver	Comments	Date
Tom Sullivan	VP, Treasurer & CRO			
Jeff Corbett	Sr. VP Energy Delivery Carolinas			
Michael Lewis	Sr. VP Energy Delivery Florida		See previous page	
Jeff Lyash	President and CEO, PGN Florida		See previous page	
Lloyd Yates	President & CEO PGN Carolinas			
John McArthur	Sr. VP Corporate Relations &General Counsel			
Mark Mulhern	Sr. VP Finance		Mark S Mulhern	3/3/09
Paula Sims	Sr. VP Power			
Jim Scarola	Sr. VP & CNO		J. Scarola	3/5/09
Peter Scott	President &CEO Service Co., CFO PGN			
William Johnson	Chairman, CEO, and President PGN			

AGENDA

1.0 Project Overview / Recommendation

2.0 Scope Statement

3.0 Major Deliverables & Milestone Schedule

4.0 Funding Requirements & Update

5.0 Economic Evaluation

6.0 Assumptions & Constraints
- 6.1 Risk Strategy
- 6.2 Contracting & Procurement Strategy
- 6.3 Regulatory Strategy
- 6.4 Quality Plan
- 6.5 Safety Plan
- 6.6 Environmental Plan

7.0 External Stakeholders

8.0 Internal Stakeholders

9.0 Project Assurance Plan

10.0 Communication Plan / Next Steps

APPENDIX:

Definitions & Acronyms

1. Project Overview / Recommendation:

Crystal River Unit 3 (CR3) was initially licensed to operate at a maximum core thermal power level of 2452 MWt. In Technical Specification Amendment 41, dated July 21, 1981, the NRC approved operation of CR3 up to 2544 MWt. Subsequently, Amendment 228 was issued by the NRC on December 26, 2007 approving a steady-state maximum core power level increase to 2609 MWt.

The implementation of the CR3 Power Uprate Project is an important element of the Progress Energy Balanced Solution. A Measurement Uncertainty Recapture (MUR) power uprate was completed in January 2008. The MUR modifications allow CR3 to operate up to 2609 MWt and have delivered an increase of approximately 12 MWe gross from 899 to 911 MWe gross. NPC is pursuing thermal efficiency improvements at CR3 scheduled for implementation in 2009 for an additional 28 MWe gross for a total station output of approximately 940 MWe gross, and an Extended Power Uprate (EPU), which raises reactor power 15.5% from 2609 MWth to 3014 MWth with an expected increase of gross electrical output of 140MWe gross for a total station output of 1080MWe gross. The completion of the final steps of the EPU is scheduled for implementation in 2011.

The CR3 Uprate Project will result in economic benefits to customers and the community by providing additional clean energy at low cost to Progress Energy Florida (PEF) consumers. The corresponding electrical output increase of the plant's gross output from 899 MWe to 1,080 MWe can serve the equivalent of an additional 110,700 homes. The need for the project is based on projected load demand and an economic need to provide fuel savings for consumers. The CR3 Uprate Project is expected to save customers more than $2.6 billion in gross fuel costs through 2036.

The MUR project element has been completed and resulted in the expected plant power up-rate to 911 MWe. The remaining scope elements of the CR3 EPU project will be installed during the next two refueling outages in 2009 (R16) and 2011 (R17). The R16 phase will increase the steam plant efficiency. The R16 upgrades have been scheduled for implementation during the 2009 planned refueling outage to take advantage of the steam generator replacement project schedule window. The R16 turbine center line component design improvements will increase the efficiency of power production resulting in decreased consumer costs. The low pressure turbines and electrical generator and exciter will be replaced in 2009. The #3A and B Condensate heat exchangers, turbine cycle steam moisture separators, and other steam cycle improvement modifications will also be implemented in 2009. The net impact of these modifications is a substantially more efficient (approximately 3%) secondary plant. Thus, while the Nuclear Regulatory Commission (NRC) licensed power level will remain constant at 2609 MWth, the gross electrical power generation increase from current levels of 911 MWe through the R16 phase is expected to be an additional 28 MWe.

Prior to implementing the planned power up-rate in the R17 outage, CR3 will need to obtain an NRC license revision to allow operation at the increased output of approximately 3014 MWt excluding reactor coolant pump heat. The set of project scope elements to be implemented during R17 will result in an additional 140 MWe of power. This will require revisions to the various control systems set points, the High Pressure Turbine and a large number of smaller yet substantial modifications to the Booster Feed Water pumps, Condensate pumps, and various valves and piping segments to assure the capability and long term reliability of all plant systems at the conditions necessary to support this higher licensed power level.

No alternative generation option exists that can supply the benefits of additional, reliable, base load at an equivalent net savings to PEF customers. The CR3 Uprate Project will also increase the level of nuclear production in the fuel supply mix of PEF's system, resulting in increased fuel diversity for PEF and the State of Florida. The total cost for the up-rate is estimated to be $462 million. This total cost includes the construction of new forced draft cooling towers to meet PEF's Environmental Stewardship and regulatory requirements. The Co-Owners responsibility of 8.2% of costs will offset the final costs to PEF.

Additional cooling towers are needed to remove thermal energy from the discharge canal. Furthermore it is necessary to limit or avoid increased circulating water flow into the discharge canal.
PEF will also develop and implement a long-term solution replacing or making permanent the additional discharge canal cooling currently being addressed by the Modular Cooling Towers (MCT) installed in 2006 for CR Units 1 and 2. The MCT project was determined to be recoverable through the Environmental Cost Recovery Clause (ECRC) in Docket 060162, Order No. 07-0722. PEF will seek recovery of the funds for the MCT permanent solution through the ECRC. This will partially offset the associated costs for the MCT portion of this project.

The business case for the CR3 power up-rate was developed to seek funding from either corporate sources or through the Fuel Adjustment Clause. On February 8, 2007 the Florida Public Service Commission (FPSC) approved the Petition for Determination of Need for Proposed Expansion of Crystal River Unit 3 Nuclear Power Plant (Docket No. 060642-EI). The determination of need included the request for approval to utilize the Fuel Adjustment Clause as a source of funding for the EPU Project. Subsequent interaction with the FPSC resulted in a redirection to instead seek recovery through the New Nuclear Clause.

The volume of work to be implemented in the two outage cycles and the resultant challenges to logistical and resource management will require the use of some new and advanced project management tools. Examples include 4 dimensional modeling for critical staging and work areas and the development of creative solutions for personnel ingress and habitation scenarios

2.0 Scope Statement:

The MUR installation and testing was completed in January 2008. Since the initial IPP was approved, we have determined that the turbine bypass valve mufflers will be replaced as part of this project.

In order to support EPU Steam Cycle Efficiency Improvements the following Modifications will be implemented during the 2009 16R Refueling. This outage affords the advantage of a longer than normal refueling outage because of steam generator replacement.

- 16R Refueling Outage 2009 BOP Efficiencies
  - Turbine/Generator (940 MWe)
    - (2) Low Pressure Turbine replacements
    - Generator Stator Winding and Core Iron replacement (63 days)
    - Generator Rotor replacement
    - Exciter Replacement
  - (2) Turbine Generator Lubricating Oil Cooler tube bundle replacements
  - (4) Moisture Separator Reheater replacements
  - (2) Condensate Heat Exchanger replacements
  - (8) Heater Drain Valves and piping segment replacements
  - (2) Secondary Cooling Heat Exchanger, Pump Impeller and Motor replacements

- (2) Moisture Separator Reheater "Belly Drain" Heat Exchanger additions
- Iso-phase Bus Duct Cooler and Fan Housing Replacement
- ICS updates
- Plant Process Computer (PPCS) modifications
- Replacing the Turbine By-Pass Valves and Mufflers

- 17R Power Uprate 2011. (RX + 15.5%,TG 1080MWe)
  - High Pressure Turbine replacement
  - ICS updates and Safety System Modifications
  - De-aerator Bypass line addition or new De-aerator
  - (2) Atmospheric Dump Valve replacements
  - (2) Booster Feed Pumps Impellers and Motor replacements
  - (2) Condensate Pumps
    - Variable speed direct drive
    - May require two additional 6.9KV Breakers to be installed
  - (2) Emergency Feed Water Pump Steam admission and instrumentation upgrades
  - LPI Cross-tie for Core Flood Line Break mitigation
    - Core Offload required to support implementation
  - Plant Process Computer modifications

- Point Of Discharge Cooling and Flow Mitigation
  - Mitigate the thermal load introduced into the Discharge Canal
  - Provide a long term solution to the temporary Modular Cooling Towers

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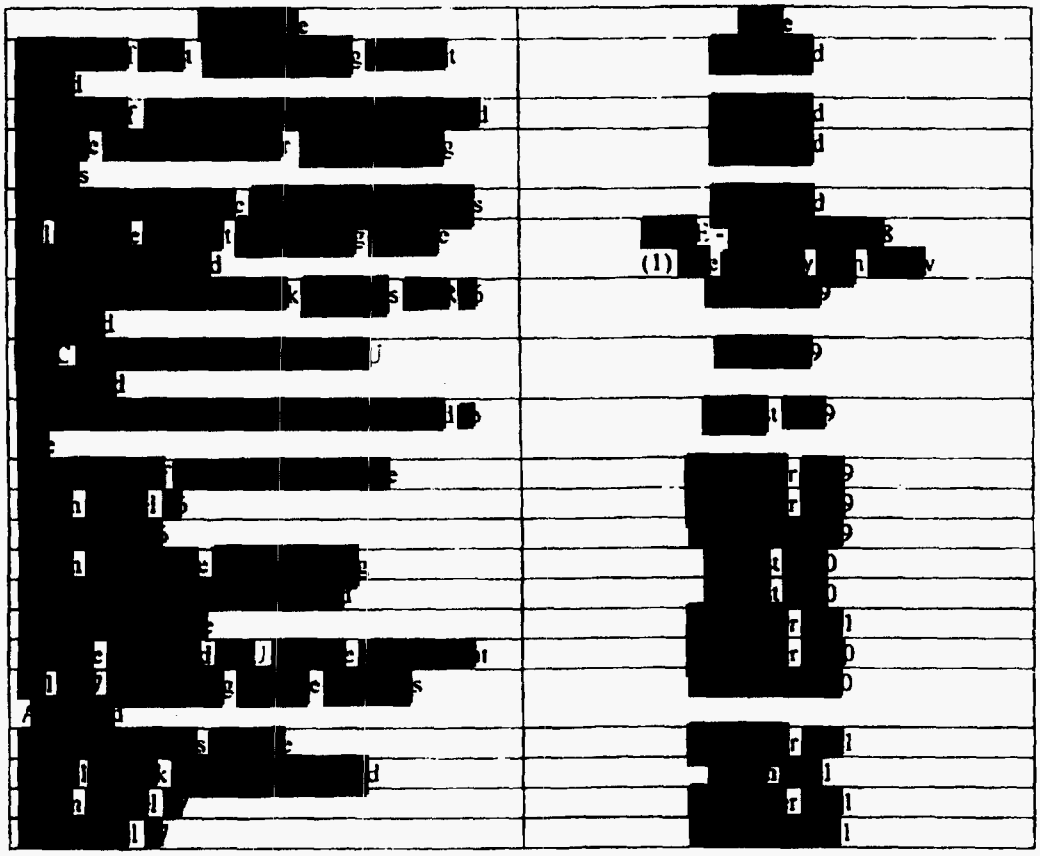

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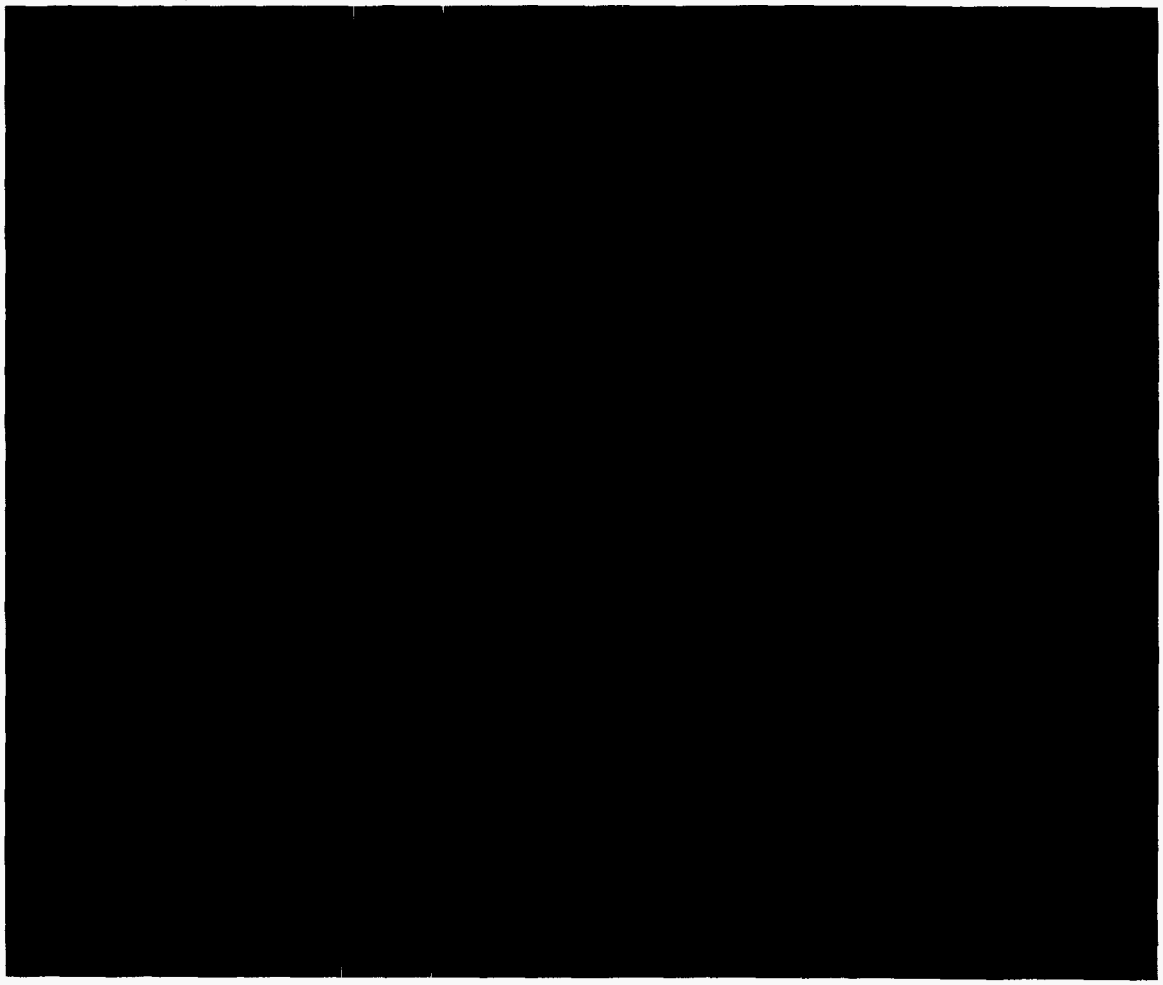

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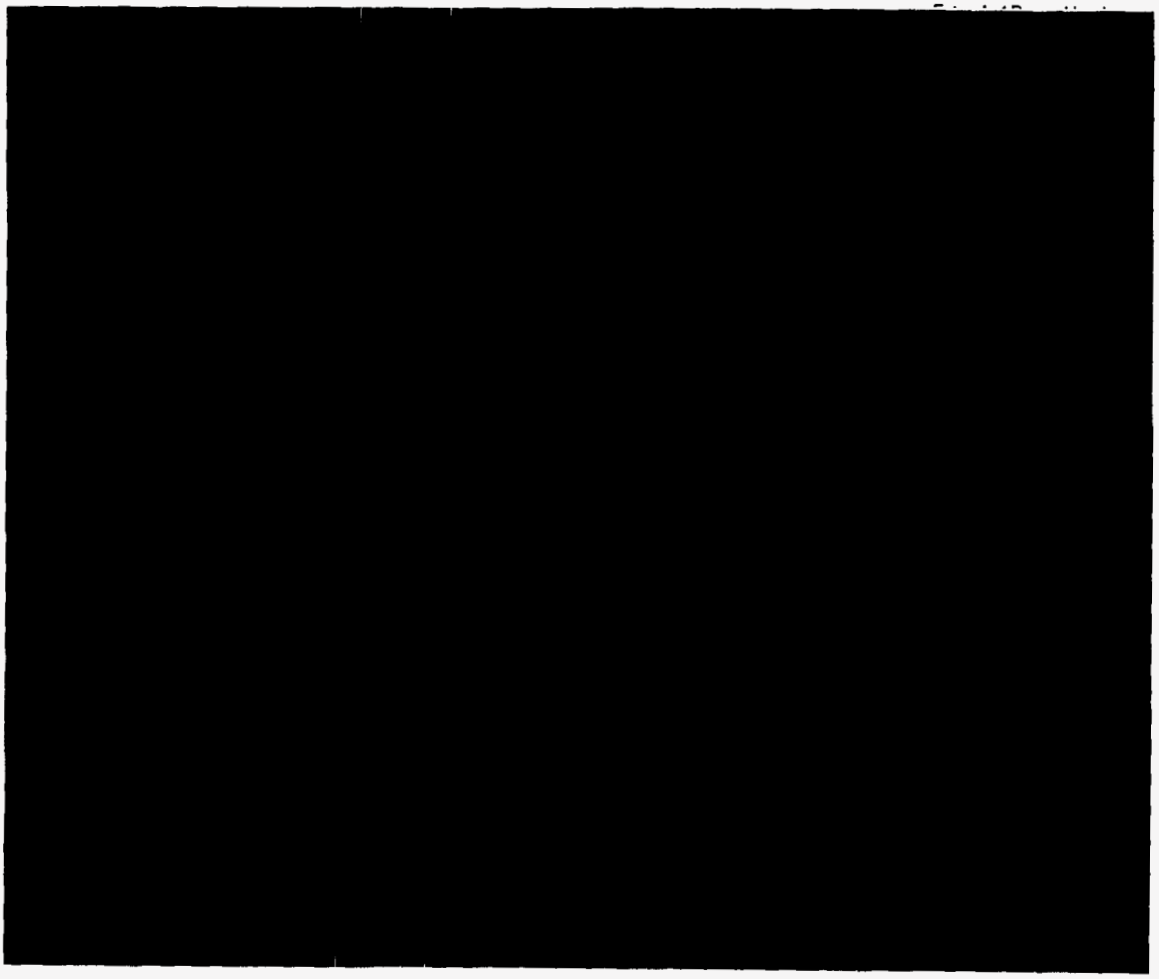

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4.0 Funding Requirements & Update:

CR3 EPU Proposed IPP:

[redacted]

Project Costs	[redacted]
Direct Cost	
Contingency	
Burdens / Allocations	
Financial View Total	
AFUDC	
Total Project Cost	
Joint Owner *	
Total Project Cost including AFUDC net Joint Owner	

**Point of Discharge Cooling Tower Work is not Joi*

[redacted]

Project Costs	[redacted]
Direct Cost (Surplus Inventory/Incremental Cost)	
Burdens / Allocations	
Financial View Total	

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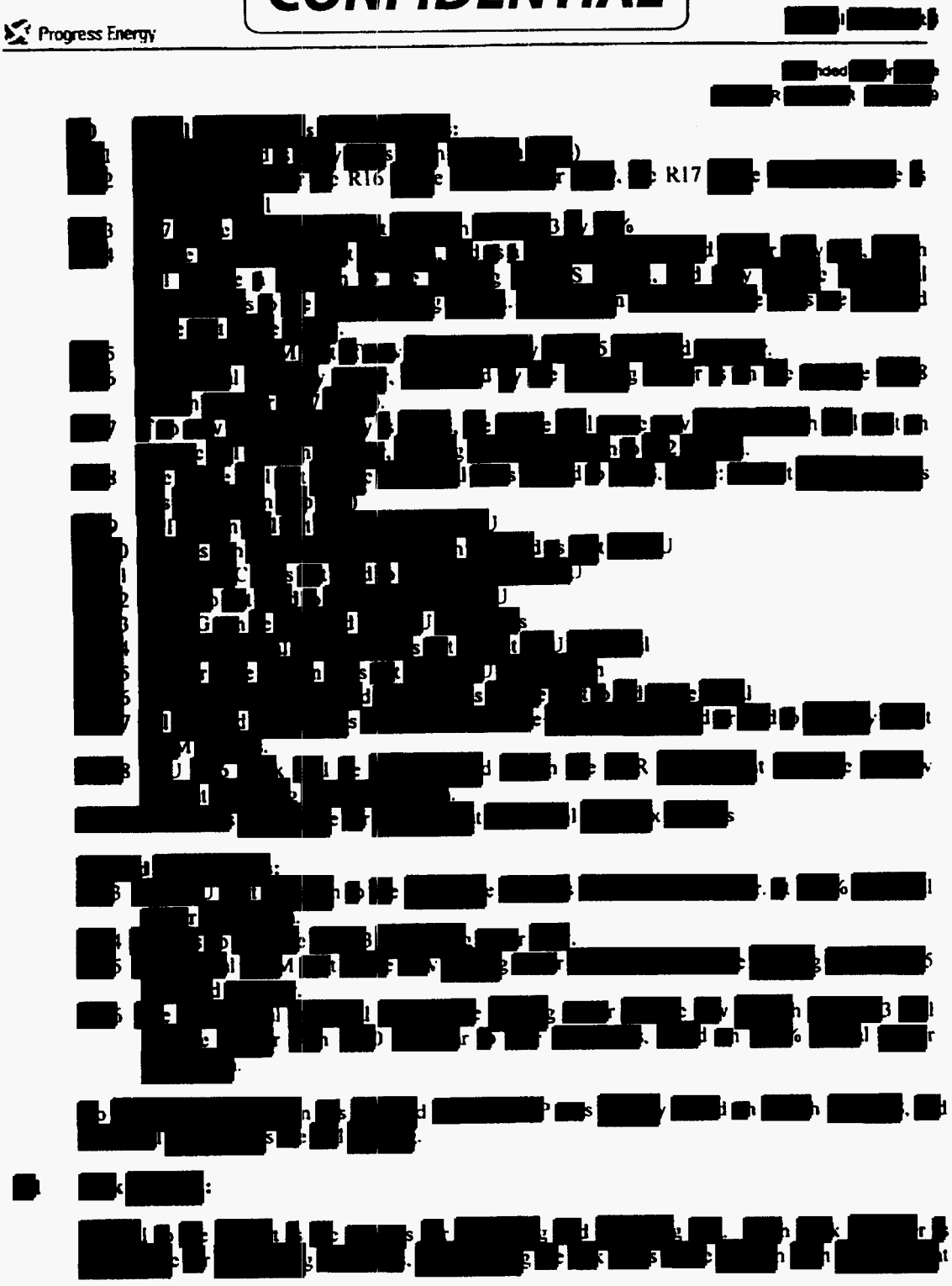

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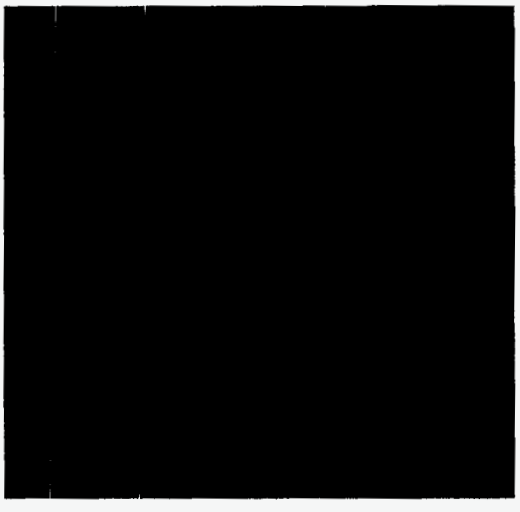

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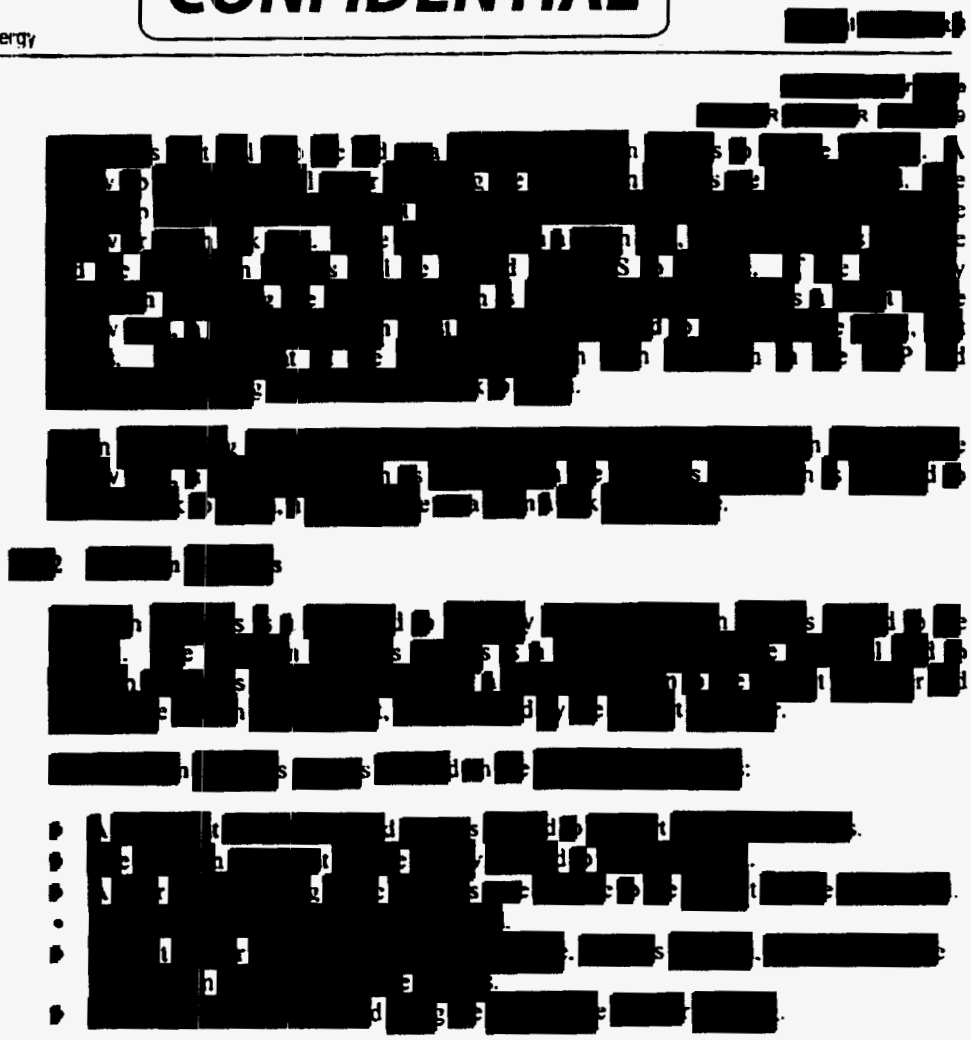

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Contract/PO Purpose	Subcontractor Selected	Status
NSSS/BOP Engineering Services	AREVA	Issued
Turbine Generator Fabrication and Installation	Siemens	Issued
Moisture Separator Reheaters, MSRs	Thermal Engineering International	Issued
Condensate and Secondary Cooling Heat Exchangers	YUBA	Issued
16 R SC Pump and Motor	Flow Serve	Issued
16R/17R Rigging	Barnhart Crane & Rigging Co.	Issued
16R/17R Disposal and Storage	MHF Logistical Solutions	Issued
17R Installation	TBD	Pending
17 R Pumps and Motors	TBD	Not Started
Leading Edge Flow Meter	Cameron	In Close Out
Turbine Bypass Valves	Areva	Pending
EPU Large Bore Welding	Pending	Pending
CR3 POD Cooling Towers Engineering, Procurement and Construction	Eng. Vendor: Mesa P&C: Evaptech	In Process
[illegible]	[illegible]	In Process

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Two MSR Shell Drain Heat Exchangers	Holtec International	Issued
ISO Phase Bus Duct Cooling Unit	Powell Delta/Unibus	Issued
Turbine Generator Lube Oil Cooler Tube Bundles	Holtec International	Issued
Installation of Secondary Side Insulation	ESI Group, Inc.	Issued
Qual of SG @ EPU Conditions 3030 Mwth	BWC	Issued

[redacted]

[redacted]

[redacted]

6.2.2 [redacted]

[redacted]

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6.3 Regulatory Strategy:

6.3.1 Permitting

There are two primary regulatory 'permits' required: 1) Site Certification from the Florida Department of Environmental Protection (FDEP), and 2) License Amendment from the NRC. PEF received an amended "Conditions of Certification" or COC for Units 3, 4, and 5, in August 2008. CR3 was not issued a separate COC. The COC recognizes PEF's intention to construct a new cooling tower to mitigate thermal impacts from the EPU in order to maintain compliance with the existing NPDES permit.

The primary approval for the Extended Power Uprate change in Rated Thermal Power by the NRC will be an extensive license amendment request scheduled to be filed in mid 2009. As other separable items or issues are identified they will be pursued earlier and separately to allow the EPU to be as straight-forward as possible. The initial effort will be to meet with the appropriate NRC staff to determine if formal review and approval is necessary.

The inputs to the EPU LAR as well as any other regulatory approvals are addressed in the overall project schedule and controlled like any other project task.

6.3.2 Public Service Commission History

In 2006, PEF filed for a Determination of Need from the Florida Public Service Commission (FPSC). On February 2nd, 2007 the FPSC granted the Need Determination. In 2008, the PFSC issued a declaratory statement that determined the Uprate FPL was planning, could be recovered under the provisions of Section 366.93, Fla. Stat., and Rule 25-6.0423, F.A.C. This statement was determined to be applicable to our Uprate as well and allows PEF to recover the carrying costs associated with the Uprate through the Capacity Cost Recovery Clause while under construction and provides for an increase in base rates once the Uprate is placed in-service.

Pursuant to the requirements of the above legislation and Rule, PEF must file testimony each year presenting our actual costs from the prior year for a decision on their prudence as well as actual estimated costs for the current year and projected costs for the coming year. In 2008, PEF asked for recovery of approximately $24 million in carrying and other costs associated with the Uprate. PEF also requested a base rate increase effective the first billing cycle of 2009 for the MUR portion of the Uprate that was placed in-service in January of 2008. The FPSC approved PEF's requests and determined that costs spent through the end of 2007, had been prudently incurred. In 2009, PEF will again be filing the above referenced items with the FPSC requesting a determination of prudence on 2008 expenditures and in support of our 2010 rates.

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7.0 External Stakeholders:

- *Nuclear Regulatory Commission-License Amendments*
- *Florida Department of Environmental Protection - Site Certification and Permits*
- *Florida Public Service Commission-Recovery Through Special Clauses or Base Rates*
- *PEF Customers*
- *CR3 Co-owners*
- *Local Leaders*
- *AREVA Engineering Services - NSSS/BOP/Fuels America*
- *Worley Parsons-Subcontracted to AREVA*
- *Heat Exchange Services-Subcontracted to AREVA*
- *Dresser Industries subcontracted to AREVA*
- *Siemens-Turbine Generator*
- *Thermal Engineering International - MSRs*
- *YUBA Heat Exchanger- CDHE/SCHE*
- *Flow Serve - Pumps and Motors*
- *B&W Canada-ROTSG Reconciliation*
- *Barnhart- Heavy Hauling*
- *Atlantic Construction - Field Implementation*
- *MHF - Disposal of Old Components*
- *Sargent & Lundy - Cooling Tower Study Phase*

8.0 Internal Stakeholders:

- *Progress Energy Florida*
  - *Jeff Lyash, President*
- *Progress Energy NGG*
  - *Jim Scarola, Chief Nuclear Officer*
- *Nuclear Projects*
  - *Sr. Management*
    - *General Manager, Steve Huntington*
    - *Manager, Project Controls Terry Hobbs*
    - *Manager, Extended Power Uprate Steve Huntington*
    - *Manager SGR Replacement, Jim Terry*
  - *Project Controls-Scheduling*
    - *Supervisor Gene Flavors*
  - *Project Controls-Financial*
    - *Supervisor Ivy Wong*
- *Crystal River 3*
  - *Sr. Management*
    - *VP Dale Young*
    - *DSO Jon Franke*
    - *PGM Jim Holt*
  - *Line Management*
    - *Operations Manager Chuck Morris*
    - *Maintenance Manager Bill Brewer*
    - *Engineering Manager Steve Cahill*
    - *Outage and Scheduling Manager Ivan Wilson*
  - *Engineering*
    - *Design Engineering Harry Oates*
    - *Systems Engineering Barry Foster*
    - *Technical Services Blair Wunderly*
  - *Fossil Operations*
    - *Larry Hatcher*
    - *Mike Olive*

Internal Stake holders and resources will be required to support the project with design meeting reviews, Engineering Change milestone sign offs in Passport, and owner acceptance of completed modifications and configuration deliverables. Coordination between the Steam Generator Replacement Project and the Extended Power Uprate is vital to ensure the new replacement generators will be qualified to operate safely at the new uprate power level. Project Control and Project Support interface is essential to properly monitor schedule adherence with schedule development, key performance indicators, and financial reporting.

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Key Performance Indicators and Milestones

Key Performance Indicators (KPIs) and Milestones will be established and identified on the Project schedule. Milestones and KPIs are controlled by the Project Manager and coordinated through the Project Controls - Functional Lead.

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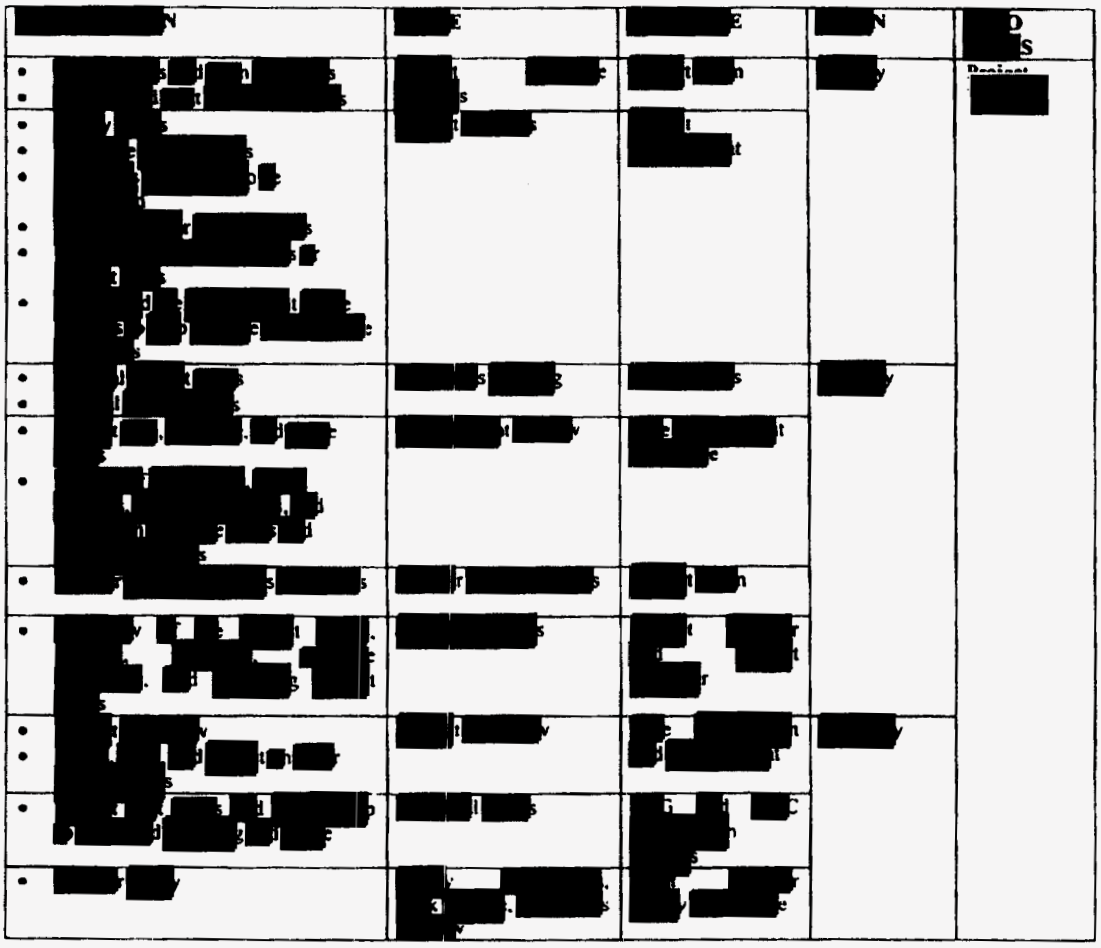

APPENDIX

Definitions & Acronyms:

AIMS: Action Item Management System – A database developed to track internal action items of SGR project team members.

CAF: Containment Access Facility – The structure or area specifically designed to regulate the ingress and egress of radiation workers required to enter the containment building (also known as the reactor building) to accomplish work.

DTP: Detailed Task Plans – Specific plans (modeled after project plans) taken to the task level to provide details on specific tasks required to support the overall project to replace the steam generators.

EC: Engineering Change – A formal document developed by design engineering personnel that provides the technical and administrative controls to ensure modifications made the nuclear facility are compliant with all applicable Progress Energy requirements and the Code of Federal Regulations for nuclear facilities.

EPU: Extended Power Uprate – An increase in developed reactor power and electrical output derived from a combination of steam efficiencies, margin harvest, and reactor power increase.

ERP: Environmental Resource Permit – A permitting process required by state regulations to ensure activities are controlled within environmental standards.

INPO: Institute of Nuclear Power Operations – The organization specifically formed to provide oversight and support to commercial nuclear power stations.

ITS: Improved Technical Specifications – The licensing document that outlines the equipment required to remain operable for operation of the reactor in all modes of operation.

KPI: Key Performance Indicators – visual indicators that are used to provide insights that specific parameters key to the project success are measured and used by management to take corrective actions when these parameters are not s expected.

NBC: Net Benefit to Cost Ratio

NRC: Nuclear Regulatory Commission – The regulatory body that oversees safe operation of commercial nuclear facilities.

NSOC: Nuclear Security Operations Center – The structure that serves as the entry point and exit point for entry into the CR3 protected area.

OTSG/OTSG's: once through steam generators- heat exchangers designed to transfer heat from the reactor coolant system into steam used to drive the steam turbine in the generation of electricity.

QA: Quality Assurance – A specific function internal to the project, designed to ensure activities performed on the nuclear facility or components fabricated in support of operation of the nuclear facility meet the established requirements for quality.

RB: reactor building – one of three designed fission product barriers designed to protect the health and safety of the public from the release of reactor coolant system inventory during a postulated emergency.

SGR: Steam Generator Replacement – The acronym used to describe the project.

WBS: Work Breakdown Structure – The fundamental building block that defines the scope of the steam generator replacement project

June 9, 2008

LICENSEE: Florida Power Corporation

FACILITY: Crystal River Unit 3

SUBJECT: SUMMARY OF MAY 19, 2008, MEETING WITH PROGRESS ENERGY FLORIDA, INC., TO DISCUSS POWER UPRATES AT CRYSTAL RIVER, UNIT 3 (TAC NO. MD8530)

On May 19, 2008, the Nuclear Regulatory Commission (NRC) staff conducted a Category 1 public meeting with Florida Power Corporation, now doing business as Progress Energy Florida, Inc. (the licensee), at NRC Headquarters, One White Flint North, 11555 Rockville Pike, Rockville, Maryland. The purpose of the meeting was to discuss the licensee's plans for an extended power uprate (EPU) for Crystal River Unit 3 and its integration with the license renewal application, balance of plant efficiency improvement, and other EPU-related licensing actions. Enclosure 1 contains a list of attendees. The licensee's slide presentation may be accessed from the NRC's Agencywide Documents Access and Management System Accession No. ML081410862.

DISCUSSION

At the beginning of the meeting, the NRC staff informed the licensee of the recent issuance of a new Office of Nuclear Reactor Regulation (NRR) LIC-109, "Acceptance Review Procedures," which was signed on May 2, 2008, for implementation by the staff. This office instruction, along with its attached document, "A Guide for Performing Acceptance Reviews," provides all NRR staff (and other staff supporting NRR work) a basic framework for performing an acceptance review upon receipt of a requesting licensing action. The NRC staff advised the licensee that linked amendment requests will not pass acceptance.

During the meeting, the licensee provided an overview of the proposed modifications, analyses, and licensing activities that will be performed in support of the power uprates. The measurement uncertainty recapture power uprate that increased thermal power by 1.6 percent was approved on December 26, 2007 and implemented in January 2008. A package of balance of plant efficiencies that will increase thermal power by 0.9 percent is planned for installation in the third quarter of 2009. The licensee is planning to submit an application for Crystal River in the third quarter of 2009. If approved, the licensee would implement this uprate during the 2011 refueling outage that would raise the plant's rated thermal power from 2069 Mwt to 3014 Mwt (~15.5 percent). This project will position Crystal River Unit 3 as the first Babcock & Wilcox plant to operate at over 3000 Mwt.

The licensee is planning to commence plant modifications for power uprate during the 2009 refueling outage and finishing EPU-related modifications in the 2011 refueling outage. In addition, steam generator replacement will take place during the 2009 refueling outage.

Although an independent effort, a license renewal application for Crystal River Unit 3 will also be submitted during the 2009 timeframe.

During the discussions, the NRC staff advised the licensee to provide submittals that contained all necessary information to perform the required reviews, as opposed to submittals which would require multiple rounds of requests for additional information, thus drawing out the approval process. Also, the NRC staff noted that although an environmental assessment will be performed for the license renewal, a separate albeit similar assessment will need to be performed for the EPU. The licensee was also asked by the staff to provide a markup of the RS-001, "Review Standard for Extended Power Uprates," matrix to show how their current licensing basis relates to the guidance.

The licensee is considering four potential issues that may require licensing actions. The first is the need for an exemption for core flood line break with concurrent bus failure on the other train. The NRC advised the licensee to submit the exemption as non-risk-informed for scheduling purposes. The submittal is expected in August of 2008.

The second issue is the small-break loss-of-coolant accident (LOCA) with manual action/mitigation. The licensee will replace the atmospheric dump valves (ADVs) with larger safety relief valves and will expand manual actions to change steam generator level setpoints to also open ADVs, resulting in faster depressurization. The licensing amendment request (LAR) submittal is expected in August 2008.

The third issue is the rod withdrawal (reactivity insertion) methods. Results with the current methods are not acceptable. AREVA plans to submit an operating plant topical report in the fall of 2008. After the NRC provides requests for additional information on similar topical reports for new reactors, the licensee will submit a plant-specific LAR in February 2009.

The last issue is the boron precipitation methods. Current methods will be evaluated under 10 CFR 50.59. If an LAR submittal is required, it is planned for October 2008. Other potential issues are setpoint methodologies, evacuation time estimates, source term, and dispersion factor calculation methodology.

The staff and the licensee are planning additional pre-application meetings on the EPU environmental report plan and technical discussions of the some of the EPU-related licensing activities (e.g., core flood line break and secondary depressurization) in July 2008. Steam generators replacement and its impact on EPU will be discussed in a separate meeting in August 2008.

No commitments or regulatory decisions were made by the NRC staff during the meeting.

Although members of the public were invited, none were in attendance. Public Meeting Feedback forms were not received.

Please direct any inquiries to me at 301-415-1447, or farideh.saba@nrc.gov.

/RA/

Farideh Saba, Senior Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-302

Enclosure: List of Attendees

cc w/encl: See next page

Please direct any inquiries to me at 301-415-1447, or farideh.saba@nrc.gov.

/RA/

Farideh Saba, Senior Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-302

Enclosure: List of Attendees

cc w/encl: See next page

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ADAMS Accession No. Meeting Notice: ML081190715
Summary: ML081480504/Slides: ML081410862 Package:ML081480524 NRC-001

OFFICE	LPLII-2/PM	LPLII-2/PM	LPLII-2/LA	LPLII-2/BC
NAME	TOrf:sp	MVaaler for FSaba	CSola	TBoyce
DATE	06/04/08	06/04/08	05/30/08	06/09/08

List of Attendees
U. S. Nuclear Regulatory Commission
Public Meeting with Progress Energy Florida, Inc.
Regarding Crystal River Power Uprates
May 19, 2008

U. S. NUCLEAR REGULATORY COMMISSION

T. Alexion
T. Boyce
E. Brown
Y. Chung
G. Cranston
J. Gavula
A. Hiser
N. Iqbal
S. Jones
B. Kemper
E. Lenning
L. Lund
K. Manoly
R. Mathew
G. Miller
T. Orf
F. Orr
B. Parks
J. Quichocho
F. Saba
C. Schulten
S. Tingen
G. Wilson

PROGRESS ENERGY FLORIDA, INC.

J. France
M. Heath
S. Huntington
D. Varencer
L. Wells
T. Williams
K. Wilson

AREVA NP, INC.

T. Beckham
J. Seals

Enclosure

Progress Energy Florida, Inc. **Crystal River Nuclear Plant, Unit 3**

cc:

Mr. Dale E. Young, Vice President
Crystal River Nuclear Plant (NA1B)
ATTN: Supervisor, Licensing
& Regulatory Programs
15760 W. Power Line Street
Crystal River, Florida 34428-6708

Mr. R. Alexander Glenn
Associate General Counsel (MAC-BT15A)
Florida Power Corporation
P.O. Box 14042
St. Petersburg, Florida 33733-4042

Mr. Michael J. Annacone
Plant General Manager
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Framatome ANP
1911 North Ft. Myer Drive, Suite 705
Rosslyn, Virginia 22209

Mr. William A. Passetti, Chief
Department of Health
Bureau of Radiation Control
2020 Capital Circle, SE, Bin #C21
Tallahassee, Florida 32399-1741

Attorney General
Department of Legal Affairs
The Capitol
Tallahassee, Florida 32304

Mr. Craig Fugate, Director
Division of Emergency Preparedness
Department of Community Affairs
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Chairman
Board of County Commissioners
Citrus County
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Inverness, Florida 34450-4245

Mr. Stephen J. Cahill
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Crystal River, Florida 34428-6708

Mr. Jon A. Franke
Director Site Operations
Crystal River Nuclear Plant (NA2C)
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Crystal River, Florida 34428-6708

Senior Resident Inspector
Crystal River Unit 3
U.S. Nuclear Regulatory Commission
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Crystal River, Florida 34428

Ms. Phyllis Dixon
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Crystal River, Florida 34428-6708

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Raleigh, North Carolina 27602-1551

Mr. Daniel L. Roderick
Vice President, Nuclear Projects &
Construction
Crystal River Nuclear Plant (SA2C)
15760 W. Power Line Street
Crystal River, Florida 34428-6708

Mr. David Varner
Manager, Support Services - Nuclear
Crystal River Nuclear Plant (SA2C)
15760 W. Power Line Street
Crystal River, Florida 34428-670

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

IN RE: NUCLEAR POWER PLANT COST RECOVERY CLAUSE

Docket No. 090009-EI
Served: July 8, 2009

PROGRESS ENERGY FLORIDA, INC.'S SUPPLEMENTAL RESPONSE TO CITIZENS' SIXTH SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC. (No. 71)

Progress Energy Florida, Inc. provides its Supplemental Response to Citizens' Sixth Set of Interrogatories to Progress Energy Florida, Inc. (No. 71) as follows:

INTERROGATORY

Question 71.

At 09NC-OPCPOD1-4-000018 (confidential) risks associated with the CR3 EPU project are identified. How have Risk #'s 473, 239, 241, 475, and 474 been resolved or mitigated? Has the NRC accepted the PEF's proposed resolution of these risks?

Answer

Risks 473, 239, 241, 475, and 474 are EPU risks that are associated with the 2011 project activities. These risks have been evaluated in accordance to the Nuclear Projects Guidance Document NPGD-002 "Information and Process Management". The resolution and mitigation plans have been developed but are not complete at this time.

The NRC has not been formerly requested to accept the resolution strategy. Those requiring NRC review and approval will be included in the EPU License Amendment Report that is scheduled to be submitted the fall of 2009.

AFFIDAVIT

STATE OF FLORIDA

COUNTY OF CITRUS

BEFORE ME, the undersigned authority duly authorized to administer oaths, personally appeared Jon A. Franke, who being first duly sworn, deposes and says that the foregoing answers to Interrogatory No 71 of OPC's Sixth Set of Interrogatories (Nos. 64-72) to Progress Energy Florida, Inc. in Docket No. 090009-EI, are true and correct to the best of his knowledge, information and belief.

(Signature)
Jon A. Franke

THE FOREGOING INSTRUMENT was sworn to and subscribed before me this 8 day of July, 2009 by Jon A. Franke. He is personally known to me, or has produced his — driver's license, or his — as identification.

(Signature)
Carolyn E Portman
(Printed Name)
NOTARY PUBLIC, STATE OF FL
Mar 1 2010
(Commission Expiration Date)
—
(Serial Number, If Any)

(AFFIX NOTARIAL SEAL)

CAROLYN E. PORTMAN
Notary Public - State of Florida
My Commission Expires Mar 1, 2010
Commission # DD 624389
Bonded By National Notary Assn.

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Extended Power Uprate Project

Nuclear Projects Management Review

March 31, 2009

NGG Nuclear Generation Group

Progress Energy

09NC-OPCPOD1-7-000071

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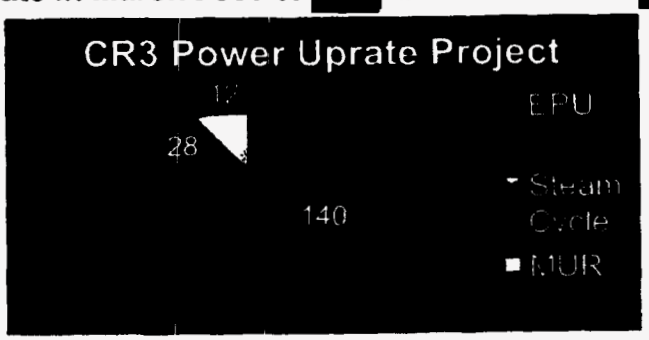
Project Overview

- EPU Project Overview
  - Initial Authorization November 2006, [redacted] Financial View BAP
  - Completed Measurement Uncertainty Recovery + [redacted] MWe
  - Steam Cycle Efficiency [redacted] MWe in 2009
  - Extended Power Uprate (EPU) + [redacted] MWe in 2011
  - Point of Discharge (POD) Mitigation concurrent with EPU
  - CR3 Increases Output from [redacted] to [redacted] MWe total
  - IPP Update in March 2008 to [redacted] M EAC. Delivers [redacted] in fuel savings



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Agenda

- Project Schedule Performance
  - Metric Dashboard Panel
  - Individual Project Task Report
- Risk Management
  - Status Matrix
- Project Cost Performance
- Project Scope Management
- Regulatory / Licensing Activities
- EPU Staffing Progress
- Other Concerns
- Summary

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Schedule Performance

- **Schedule Compliance Metric (Activity Started / Completed per project schedule):**
  - **100% - 95% = Green, 95%-90% = , <90% =RED**
- **Completed new project and task metrics dashboard that will be used for the EPU Project monthly and for the individual project tasks reports. Examples of these are provided on the following slides.**
- **Metrics include raw cost versus budget, SPI, and EVA analysis per project task and for overall project.**
- **Overall Project SPI is at [redacted]%**

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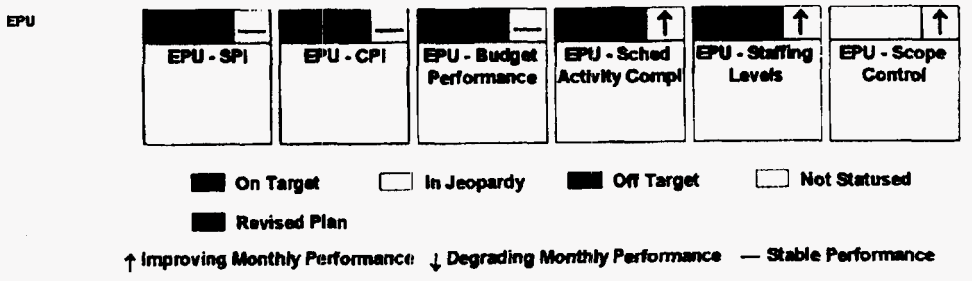
Metric Dashboard Panel for EPU

Nuclear Projects EPU Annunciator Panel

February 2009



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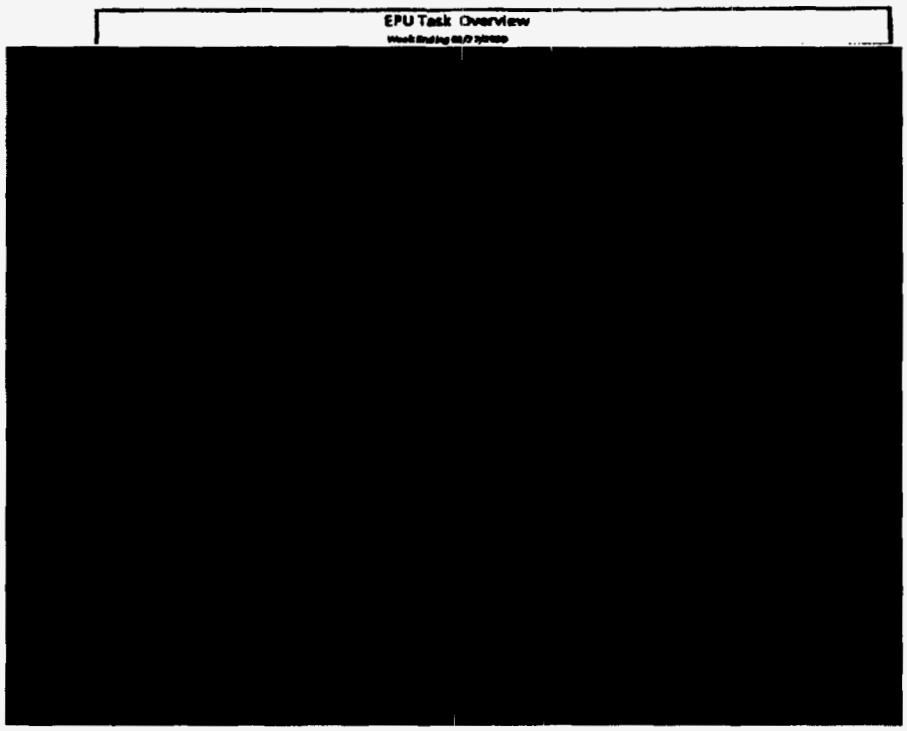
Metric Dashboard Panel for Overall Project (Feb 2009)



Progress Energy

09NC-OPCPOD1-7-000076

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Metric Dashboard Panel for Overall Project (Feb 2009)

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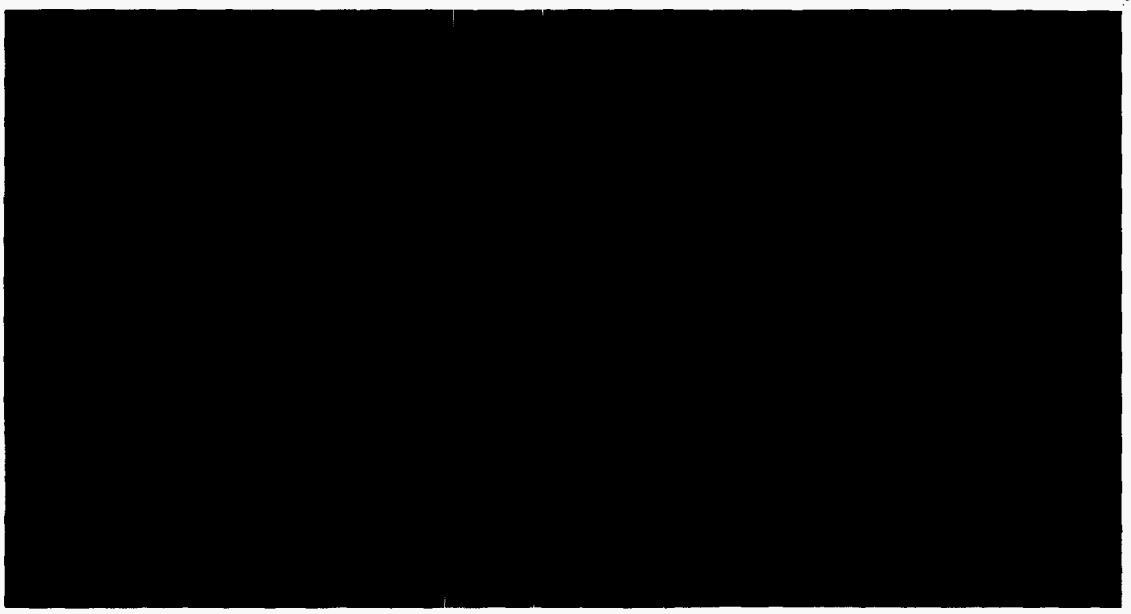
Metric Dashboard Panel for Overall Project (Feb 2009)



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Schedule Performance
Major Schedule Performance Issues

- **Engineering EC Completion schedule originally called for all ECs to be PGM approved by 12/5/2008. Extended milestone to match the Outage Milestone date of 1/29/2009. Remaining ECs were completed by the milestone date with the exception of the following:**
  - **Isophase Bus - PGM approval completed 2/19/09.**
  - **ICS Rescale - PGM approval completed 2/19/09**
  - **Turbine Generator - PGM approval completed 2/20/09.**
  - **Kickoff Meeting for the TBV EC was held on Feb 17th, which resulted in a an agreement to complete the TBV EC by 6/26/2009.**
- **$ on Line ECs also require attention. Fiber optic backbone, temp power for TB, Turbine Crane uprate, and overall 16R EPU summary EC for margin management.**
- **Turbine component manufacture schedule held for last 3 months, but no improvement from initial slips. Wit[redacted].**
- **Licensing performance revised Rod ejection analysis LAR submittal 4 weeks. Now scheduled for February 28, 2009. Slipped 4 weeks due to new methodology test question data not applicable or representative of actual conditions at CR3. Left no margin at certain accident scenarios. AREVA revising test question now to support CR3 LAR evaluation.**
- **Insufficient schedule maturity and level of detail developed for Facilities / logistics pre outage efforts, and also for In Processing work. New detailed level 3 schedules are to be published and used for management of the pre outage logistics and in processing work by Thursday of this week.**

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Schedule Performance

Significant Events in February

- Component Engineering work scope is being executed per the schedule.
- Rev. 0 for Turbine and Isophase EC packages complete. Rev. 1 planned (ground straps).
- Pre-outage command center activated on March 1.
- Metrics for pre-outage work established/being tracked.
- POCC team coordinating pre-outage efforts.
  - Temp power
  - Rad tool shake-out
  - Logistics
- Level 3 pre-outage schedule not fully developed.
- Preparation for 180 day Outage Readiness Review is in progress (April 8 & 9)
- 18M2 Turbine Evaluation is in progress; draft for final report is due April 5

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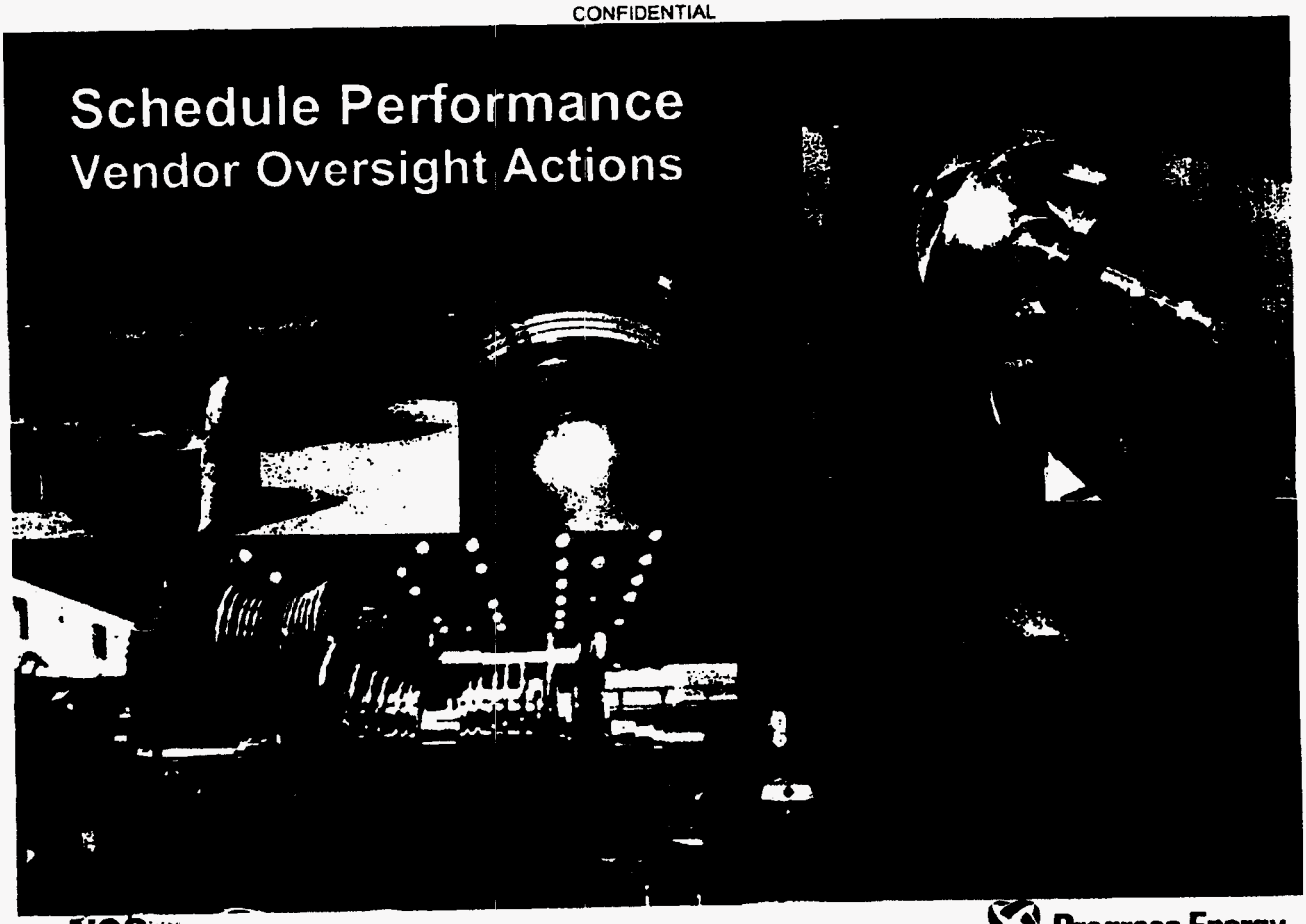
Schedule Performance
Vendor Oversight Actions



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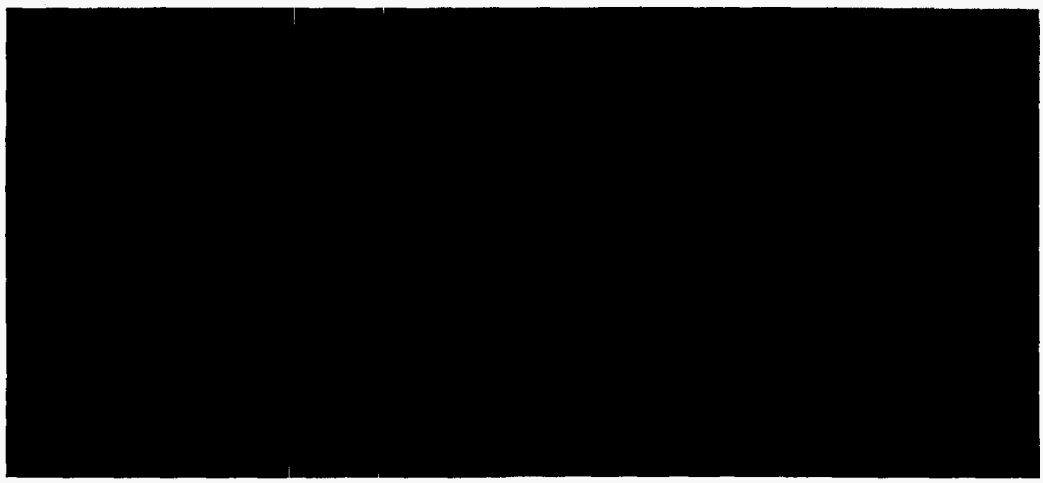
Schedule Performance
Vendor Oversight Actions

- **Established Detailed Vendor Oversight Plans per major contract**
- **Established scheduled inspection and oversight events at each of the vendor facilities plus weekly schedule review calls and monthly management oversight meetings.**



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Risk Management

- **Total Risks Identified to date** = [redacted]
- **Red Risks** = [redacted]
- **Yellow Risks** = [redacted]
- **Green Risks** = [redacted]
- **New Risks Uncategorized** = [redacted]

- **Risk mitigation plans are being developed for each red risk and are being reviewed by the Risk Management Team**
  - **Risk categories have been redefined and reassigned**
  - **Meeting membership and dates revised to enable project controls and project management attendance**
  - **Defined Red Risk Approval at PM level**
  - **Reviewing all open RED Risk Mitigation strategies for appropriate level of approval and ICF / Schedule input.**
  - **Planned task Level Shakedown to generate construction phase risk items**

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Risk Management

- 19 Red Risks identified in the Evaluation Process
- 239 - 10CFR50.46 criteria may be exceeded at EPU conditions during a CFLB.
- 241 - HPI flow inadequate at EPU conditions for some SBLOCAs
- 229 – NRC Part 26 Fatigue Management
- 253 - Rod Ejection Analysis Licensing strategy and timeline, NRC Approval Required for Reactivity Insertion Analytical Methods
- 300 - Shutdown Margin Minimum boron requirements
- 355 - Lube Oil Cooler SC System Control Valve Undersized
- 397 - Safety risk of dropped objects
- 421 - Condensate System Flow Balance with MSR Belly Drain installed
- 232 – TBV and Mufflers
- 250 - Reconciliation of ROTSG for EPU conditions may delay License submittal.
- 298 - Decay Heat Pump 1B degraded performance
- 515 - Post Mod testing and integrated start up testing impacts
- 362 - Vendor delivery delays of major components

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Risk Management

- 473 - Refuel boron Concentration following R-17
- 475 - Unacceptable Analysis results for Steam Line Break
- 474 - Unacceptable Analysis results for PSC7-78 (Steam Line Break)
- 518 - Vendor Quality not maintained
- 511 – DC Cook Rotor Failure Analysis
- 251 – LPI XTIE not currently in Scope (Refer to Risk 239)

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Costs Results for February 2009

Financial View Budget for EPU work for **February YTD** is [redacted] with actuals of [redacted] for a favorable **variance** o[redacted].

- *POD YTD is under budget by approximately [redacted] and will be re-projected per the Engineering and Procurement contracts. After POD contracts are in place and re-projected some portion of the POD budget will be added to the contingency fund.*
- *The insulation contract was budgeted at [redacted] for February. No payment is due until pre-outage activities begin. The signed contract is under the budgeted amount.*
- *Facilities is under budget by approximately [redacted]. The associated activities are scheduled for completion and payment March-June.*
- *Company & Contract Labor positions including indirect support were favorable [redacted] and are be re-cashflowed through second half of 2009;*
- *The contracted services such as Guidant are approximately [redacted] under budget and are being re-cashflowed through second half of 2009.*

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Project Cost Forecast March 2009

PROJECT PLAN
(Updated in March 2009)
(AFUDC for 2009 was re-forecast; AFUDC for 2010-2010 forecast will be reviewed; Plan is subject to change between Financial View/AFUDC with no change to total of $461.5M)

[redacted]

PROJECT LIFE TO DATE ACTUALS

[redacted]

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Scope Additions

- Common – Storm-water System Design Consultant
- Component Logistics Supervisor / Scheduler added to staffing level
- Update PMAX and Displays
- RV Service Structure Fans
- Revise PSA Analysis
- Fund Design Control Scheme Change
- Add Scope to revise DOSE calculations
- Evacuation Study Required
- Removal of Old Guard Shacks
- Perform revision to SCP EC
- Storm Water Pond Expansion
- 10 additional desks for EPU Trailer 4

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Environmental Activities

- **Site Certification Modifications or Other Approvals Underway for Related Activities**
  - **Batch Plant/South Lay-down (Mammoet) Approved**
  - **Office Trailers Impact on Storm Water Management Resolved BUT need to Complete related improvements (legacy issue with storm-water pond size)**
  - **Rail Areas Being Resolved**
  - **Cooling Tower Impacts Being Addressed**

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LAR Challenges

- **Rod Ejection Accident Related LAR Submitted this Week**
- **Required Modification Conceptual Designs Needed (later slide)**
- **Environmental Qualification Contracts in Place and Progressing. Evaluation, Phase 1, needed for LAR. Schedule will be a challenge. (Details in Later Slide).**
- **ROSTG Qualification for 3030 MWt**
  - **RCS Functional Specification Revision Completed**
  - **BWC Qualification of ROTSG to 3030 MWt Activities**
    - **Lengthy Commercial Process**
    - **Master Services Contract Now in Place**
    - **Currently EPU LAR Critical Path**

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Required Modifications

- Atmospheric Dump Valves (ADV) Being Replaced with Larger, Safety-Related Valves for Secondary Depressurization
  - Need to Complete Conceptual Design
  - Related Modifications (to EFIC) and Failure Modes and Effects Need to be Completed and Summarized in EPU LAR
- Low Pressure Injection Cross Tie Coupled with Hot Leg Injection will Resolve Core Flood Line Break as well as Boron Precipitation
  - Conceptual Design from AREVA Complete
  - NPC/CR3/NFM&SA Review Underway
- Turbine Bypass Valve
  - [redacted]% design challenge on time (4/1/09)
  - Valve manufacturing and development is on schedule

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Environmental Qualification

- An Example of Evolving NRC Expectations
- Monticello EPU Delayed Due, in-part, to Incomplete EQ Reviews
- We Have Rescheduled Required EQ Work from 2010
  - We Have Obtained Support for Dose Model (RPM) Update
  - We Have Obtained Support for EQ Study
  - Responsibility Transferred to EPU and CR3 Engineering
- Balance of EQ Work Will Follow Evaluation Phases
  - Finalized Calculations
  - Updated Vendor Qualification Packages
  - Implementation of PM or Other Changes

Licensing Related Activities

- **Set-point Methodology**
  - **Being Unsuccessfully Addressed by TSTF-493, Revision 3**
  - **NRC/NEI Management Working to Resolve**
  - **Unresolved BUT is Imposed on ALL ITS Set-point Changes**
  - **Previous CR3/EBWR Proposal May Be Acceptable to PE-Fleet, Industry and NRC**
- **Evacuation Time Estimate Will be Updated As Part of Next Transportation Update**
- **Dose Calculations are Being Redone Based on Source Term Changes. Some Changes (updated X/Q) will be Implemented Prior to EPU LAR.**

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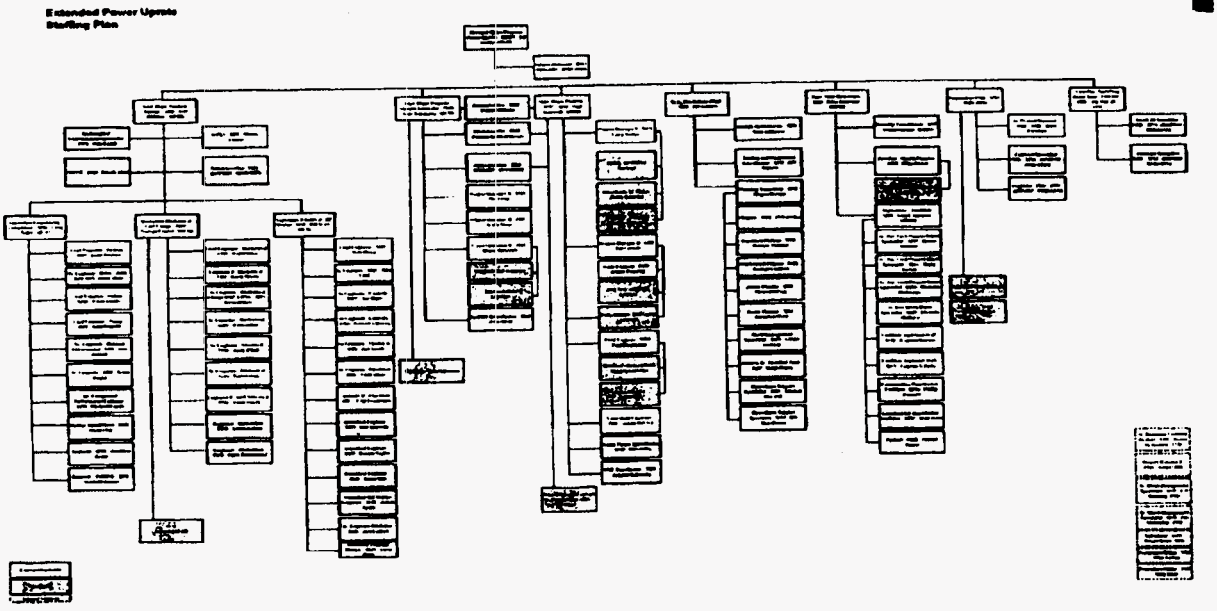
Project Staffing



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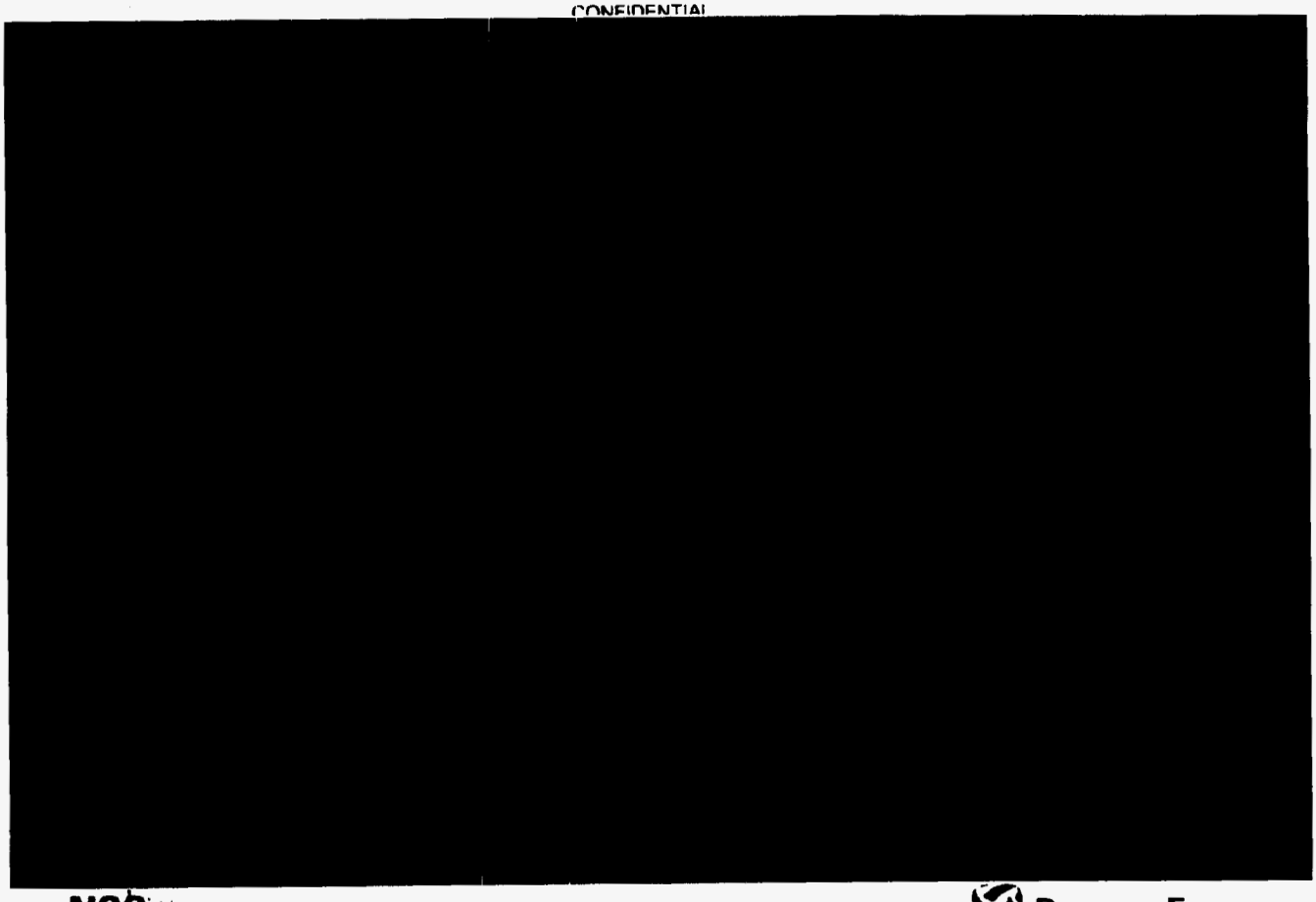

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Project Staffing

- **February Activity**
  - **Ed Avella – Manager Major Projects**
  - **Larry Tobin – Component Engineering Supervisor**
  - **Jimmy Edward– Temporary Power Coordinator**
  - **Superintendent Yard Operations – Mike Anderson**

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Other Concerns

- **Engineering Change (EC) late completion impact on downstream activities.**
- **Work Order planning quality is questionable based on QHSA.**
- **The Logistics plan is incomplete and jeopardizes the in-processing and access of contract resources.**
- **CR3 outage performance indicators currently may not give adequate warning with respect to required course corrections.**
- **Ability to attract, develop and retain qualified staff.**

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Current Status of EPU Project Works

ENGINEERING

[redacted]

PROCUREMENT

All EPU components are in the design and fabrication process at various vendor-shop locations.

CONSTRUCTION

Detailed implementation task plans (rev 1) are approved and being executed. Heavy Rigging Plans are in engineering review.

POINT OF DISCHARGE

Design contract has been issued to Mesa Associates and Evaptech. Evaptech will construct cooling towers (above CT basin).

TOTAL PROJECT % COMPLETE

[redacted]