

EPA Comments on the Plan for Prevention of Contaminant
Dispersion, Draft 1.0, submitted 9/21/90

General Comments. The major shortcoming of this Plan for Prevention of Contaminant Dispersion (PPCD) is that it is largely an academic discussion of various methods described in standard guidance and reference materials for controlling, assessing and modeling airborne contaminant dispersion. It is a well constructed discussion, but it commits DOE to nothing with the possible exception of wetting roads and excavated materials. These commitments are standard construction practice, but there are no defined criteria within the PPCD to require initiation of these activities. Many potentially important techniques are described, but no commitment is made to how, when, or where they will be used; others, such as the use of temporary enclosures, are not even described. An acceptable plan will institute appropriate standards and procedures, establish monitoring programs to verify the effectiveness of the implemented procedures, establish decision processes, and specify actions that will be taken based on those decisions. This document does none of these things.

The Executive Summary connects the Part I discussion of practices and the Part II proposed procedures for evaluation of dispersion potential and risk, indicating mitigation won't be used unless the evaluations show it is necessary. No more mention is made of this until the closing paragraph (Section 2.7, pg. II-2-75) indicates that failure to meet the limits proposed in the policy statement may trigger "additional mitigation techniques". This raises several questions, like what mitigation techniques will be triggered, and in addition to what others? EPA cannot determine how these two presentations are related; nor can we evaluate the adequacy of a dispersion prevention program without such information. The plan must define clearly how the evaluation techniques will be applied at RFP, and how results will be used to improve control procedures during remedial activities.

Executive Summary. Although DOE may consider NESHAP compliance as a primary objective of the Plan for Prevention of Contaminant Dispersion (PPCD), EPA believes that the primary objectives of developing and implementing the PPCD are to prevent the further dispersion of contaminants from source areas associated with Rocky Flats Plant (RFP), and to quantify the potential for contaminants to become dispersed or resuspended so as to implement procedures to mitigate contaminant dispersion. DOE must now realize the importance of resolving this problem in the eyes of the public. Contaminant resuspension is a continuing issue for the

public and unless DOE can satisfy the public that it has addressed this problem effectively, contaminant dispersion will continue to be raised as a public issue.

This is a plan to prevent contaminant dispersion. This is not a plan for a plan. The PPCD is intended to accomplish more than merely suggesting or proposing which contaminants or conditions should be considered in addressing dispersion. It is not to defer the problem to site-specific action. The PPCD must quantify and provide a mechanism to implement effective means to prevent dispersion of contaminants. In order to determine how to effectively achieve this objective, EPA fully expected a quantitative analysis to determine the potential for contaminant dispersion. This included a determination of contaminants to consider, conditions predicate to dispersion and mitigative measures to implement. However, this should have been completed prior to submittal of this plan, in order to predicate actions to be taken and sources to be concerned with. This analysis should have also evaluated the effectiveness of the DOE windspeed criteria, presently set at 15 mph. As of now there has been no quantitative basis for this standard presented.

The language within the proposed Interagency Agreement (IAG) requiring the PPCD must not limit DOE's creativity in addressing this problem. Cover and wetting techniques cannot be the only effective mitigative possibilities.

Preface, P-3, Policy. Policy must be implemented through practice. The purpose of this plan is not to forward policy. The purpose of the PPCD is to determine and offer effective practices which will mitigate the problems and risks associated with contaminant dispersion.

For the purposes of this plan, the driving force is not the Clean Air Act NESHAPS requirements at the boundary to RFP. The intent of the plan is to prevent potential exposure to workers at the site, as well as the public external to the plant. The plan is also intended to prevent dispersion of contaminants so as to preclude the possibility of contaminating presently uncontaminated areas, and/or recontaminating areas which will be addressed by CERCLA response actions.

It is unacceptable to forward as low as reasonably achievable (ALARA) as the threshold criteria for mitigation of contaminant dispersion. Not all contaminants are radionuclides. Nor is this consistent with DOE's premise that the NESHAPS are the driving force behind this requirement. Perhaps lowest achievable emission rate (LAER) is more in line with DOE's premise that NESHAPS provide the

jurisdiction to implement this program. Regardless, the plan as presented proposes no method to evaluate whether or not mitigation techniques achieve ALARA or LAER requirements.

Preface, P-4, Purpose. The results of screening level assessments must be used to evaluate the effectiveness of any mitigation technique implemented and must not be limited to an evaluation of the effectiveness with respect to off-site exposures. The intent of the plan is to prevent potential exposure to workers at the site, as well as the public external to the plant. The plan is also intended to prevent dispersion of contaminants so as to preclude the possibility of contaminating presently uncontaminated areas, and/or recontaminating areas which will be addressed by CERCLA response actions.

In effect, part II of the PPCD should be used to quantify and evaluate the effectiveness of the plan offered in part I of the PPCD. Thus, the plan to prevent contaminant dispersion may need to be altered in the future if it is found ineffective.

Part I Comments

Procedure for Control of Windblown Contamination from Vehicle Movement

Section 2.0. The planned procedures should apply to all persons potentially working within or travelling through individual hazardous substance sites.

Section 7.1. The document must define schedules for when planned activities are to be completed. Thus, sections 7.1 and 7.2 should not only require the particle size determination and correction of roadway aggregate size actions, but define when these actions will be completed, and how completion will be documented.

Section 7.3. It is unclear how ALARA can even be determined when the PPCD does not define how the second part of the plan will be used to modify implemented procedures.

The subsections within this section on fugitive dust control methods must define criteria for requiring mitigation techniques to be implemented. The remedial project managers discretion does not suffice as the defined criteria.

Section 7.3.1.3. The selection of speed limits must not be predicated by cost versus benefit. The quantification of risk and evaluation of effectiveness of mitigative techniques should be used to determine speed limits. This

is a topic for resolution which should be addressed through implementation of part II of the PPCD.

Section 7.3.2.2. and 7.3.2.3. If mechanical sweeping and water flushing both have inherent capacity to create dispersion of contaminants, how can these methods be implemented to prevent this inherent capacity?

Procedure for the Control of Windblown Contamination by Soil Movement

Section 2.0. This procedure should not be limited to environmental restoration earth moving activities, but should include all earth moving activities which have the potential to disperse environmental contaminants.

Section 7.0. The criteria by which the procedures must be implemented must be defined within the subsections.

Section 7.3.2. How will the plume from material drop be prevented from going over the height of the wind screen? As an example of a common problem, this section never says when, where, or even if wind screens will be used. This information is nice; tell us what it means to the RFP contaminant dispersion program.

Section 7.4. Drill cuttings and fluids must be handled in accordance with the approved Standard Operating Procedures.

Procedure for the Control of Windblown Contamination from Wind Erosion

Section 5.1. Part II of the PPCD should require investigation or verification of the potential for wind erosion as it relates to particle size.

Section 5.3. Criteria must be established to identify which procedure will be required. The plan must also evaluate effectiveness of the proposed procedures.

Section 5.3.2. The information presented within this section seems to be in conflict with the information presented on windscreens within section 7.3.2. of the Procedure for the Control of Windblown Contamination by Soil Movement.

Section 7.0. The plan provides no mechanism to evaluate whether the procedures to be initially implemented are as low as reasonably achievable.

Section 7.1, Page I-28 - Almost every subsection here ends with a statement that a particular method will be applied "as

required" or "as deemed appropriate." What is needed are the particulars of how, when, on what basis, and by whom the determination of what is required or appropriate gets made.

Part II

Introduction. The plan is not intended to disregard on-site risks or on-site migration. The RFP boundary is not the point of compliance with regard to the requirements of this plan.

The PPCD must present plans to prevent contaminant dispersion, not present proposals which will in turn be used to establish procedures to prevent contaminant dispersion. The modelling exercise should have already taken place so that the information generated from the modelling exercise could have been presented to support concrete plans for prevention of contaminant dispersion within this PPCD. This PPCD is intended to support RFI/RI work, and must not become a parallel program supported by the RFI/RI work.

Proposal to Identify and Evaluate Areas or Sites which have the Potential for Windblown Organic, Inorganic and/or Radioactive Contaminants

Section 2.1. The previously collected data should have been used for those sites where information exists. This is the plan for prevention of contaminant dispersion, not the plan for collecting and evaluating information which might support a plan for the prevention of contaminant dispersion. It is not acceptable to defer this evaluation until some later date after the RFI/RI work has been completed. The modelling evaluation should have been used to preliminarily identify those environmental restoration areas or tasks which have the potential to release contaminants. This is a "feed forward" exercise intended to give the ER program information which can be used to establish procedures to minimize the possibility of release. These procedures were supposed to have been presented within this PPCD. The modelling exercise could then be evaluated in terms of actual monitoring to determine the effectiveness of the mitigation technique. Regardless of whether the modelling evaluation is ever verified, field monitoring must occur to evaluate the effectiveness of the mitigation techniques employed, to define the contaminant levels released, to estimate the potential for human health risk, and to determine whether procedures need to be revised.

Section 2.3. The plan must identify when information will be collected, parameters estimated, and when the modelling evaluation will be completed. This plan is intended to support RFI/RI work and is not intended as a research

project to be published after all work is completed.

Section 3.3. The plan must identify what methods have been developed by other industries and regulatory agencies for analyzing and quantifying emissions and then propose to use them at RFP as applicable to the various situations encountered at RFP.

Section 3.4. The statement that "Emissions from some sites may be controlled..." is worrisome in that it implies it is equally likely that none of the emissions will be controlled. The contention that proposed control methods are provided in Part I helps little, since they are not; the inclusion of Table 1.6 helps even less. We know what EPA recommends. We want to know what DOE is proposing to do, how these decisions will be made, how the effectiveness will be verified and how the procedures will be modified.

Proposal to Identify the Risk for off-site Migration of Windblown Organic, Inorganic and/or Radioactive Contaminants

Section 1.0. There is no reason to limit this evaluation to an examination of estimated risk to off-site receptors. It is necessary to determine the dispersion related risks to on-site receptors and the environment.

The process as set forth within the draft PPCD is not useful in identifying appropriate techniques to employ to prevent contaminant dispersion during RFI/RI work. The modelling work should have been completed prior to submission of this plan. Conservative assumptions could have been made for use with actual data collected to provide some preliminary estimate of potential source areas. Upon receipt of additional data, models could have been refined and calibrated to represent actual conditions more precisely. This must be accomplished prior to resubmittal of this plan and prior to initiating RFI/RI field work or DOE will be faced with having to implement conservative measures to prevent dispersion of contaminants from all source areas. It would be very useful to use the risk modelling to identify those specific source areas where resuspension is an issue so that conservative responses to public pressure need not be implemented. This should have been presented within this plan.

Section 2.3. The purpose of this plan is not to limit analysis of potential risk due to contaminant dispersion to off-site receptors. Risk to on-site receptors must be evaluated, as the environmental restoration workers are surely the most at risk population. Also, there are acres of land between potential source areas and the boundary. Additionally, is

the purpose of this plan to evaluate the potential for contaminants to be redispersed, contaminating other lands and to determine how to prevent this from happening.

Sections 2.5 and 2.6. Although it is important to evaluate risk to off-site receptors, prevention of contaminant dispersion must focus on on-site receptors and on-site environment. The PPCD must calculate risk to on-site receptors and then propose measures to protect on-site receptors. If the on-site receptor is protected through implementation of this plan, then the off-site receptor is probably more protected.