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August 14, 2002

The Special Counsel

The President  
The White House  
Washington, D.C. 20500

Re: OSC File No. DI-00-0378

Dear Mr. President:

In accordance with 5 U.S.C. § 1213(e)(3), I am transmitting a report from Mr. Timothy S. Elliott, Acting Deputy Solicitor of the Department of the Interior, sent to me on behalf of Secretary Gale A. Norton pursuant to 5 U.S.C. §§ 1213(c) and (d). The report sets forth the findings and conclusions of the Secretary's review of disclosures of information allegedly evidencing an abuse of authority and a substantial and specific danger to public health and safety by officials at the Bureau of Land Management (BLM), Department of the Interior (DOI), Washington, D.C.

The whistleblower, Mr. Richard L. Harlow, is a former BLM employee, who worked for the BLM for 34 years. On January 2, 2000, Mr. Harlow retired from BLM. He has consented to the release of his name.

Mr. Harlow's allegations were referred for investigation to former Secretary Bruce Babbitt on December 8, 2000. DOI conducted an investigation and sent a report to this office on July 13, 2001. OSC concluded that supplemental information was needed. DOI provided that supplemental information on April 29, 2002.

We have carefully examined the original disclosures and reviewed the agency's response and Mr. Harlow's comments. Pursuant to 5 U.S.C. § 1213(e)(2), I have determined that the findings in the agency's report contain all of the information required by statute and appear reasonable.

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The Whistleblower's Disclosures

Mr. Harlow alleged that DOI officials abused their authority by failing to acknowledge the agency's use of the herbicide Agent Orange in its defoliation projects and by failing to determine whether or not DOI employees exposed to Agent Orange were entitled to receive medical or other benefits as a result of their service-connected exposure. Mr. Harlow also alleged that DOI officials had created a substantial and specific danger to public health and safety because DOI employees who worked on defoliation projects had not been notified that they were exposed to Agent Orange during the course of their employment. Thus, certain DOI employees were unaware of the possible danger to their health from exposure to Agent Orange.

In June 1968, Mr. Harlow began working with the BLM as a Range Conservationist on the Massacre/Cowhead Spray Project (Massacre Project) in northern Nevada. Mr. Harlow contends that as part of the Massacre Project, the BLM used herbicides, specifically Agent Orange, to eradicate sagebrush. BLM employees directed the spraying of herbicides by serving as markers or flagmen on the terrain. BLM employees stood three abreast at 21-foot intervals marking targets for aerial spraying. In the course of spraying the area, BLM employees were also sprayed with herbicides.

Mr. Harlow alleged that he was exposed to Agent Orange on virtually a daily basis for approximately six months while working on the Massacre project. He and other employees worked an average of 8-10 hours/day, 5-6 days/week wearing only regular field clothes, i.e., jeans and t-shirts. No protective gear was provided by the BLM. Additionally, Mr. Harlow recalled that, on occasion, BLM employees received surplus military equipment from the Sierra Army Depot in Herlong, California, including drums of Agent Orange for the defoliation projects. The Agent Orange was identified by orange stripes across the drums in which it was contained.

In August 1998, Mr. Harlow was diagnosed with prostate cancer. He contends that the cancer is a result of his DOI service-connected exposure to Agent Orange. In October 1998, he filed a worker's compensation claim with DOI asserting a service-connected injury. The DOI referred the matter to the Department of Labor (DOL), Office of Worker's Compensation (OWCP). In January 1999, the OWCP denied Mr. Harlow's claim because they found no connection between his service-connected exposure to herbicides and his subsequent prostate cancer. Mr. Harlow appealed that decision and a hearing was held on August 3, 1999. The DOL sent a letter to the DOI on August 10, 1999, requesting that any additional information relevant to Mr. Harlow's claim be sent to the DOL hearing representative. DOI did not acknowledge any use of Agent Orange nor

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~~did it respond to the DOI's request for information. Mr. Harlow's claim was again denied.~~

Mr. Harlow alleged that several agencies of the DOI, including the BLM, used Agent Orange extensively in defoliation efforts until it was banned in 1972. He estimates that as many as 800-1,000 DOI employees may have been exposed to Agent Orange before its use was discontinued.

### The Report of the Department of the Interior

The BLM was tasked with investigating these allegations for DOI. Its investigation did not substantiate the allegations.

In response to Mr. Harlow's allegations, the BLM reviewed documents in both its state and field offices regarding the agency's use of pesticides from 1965-1975. The report notes that BLM's investigation included a review of approximately 690 projects and an analysis of all pesticide use during the time period. The materials reviewed by the state and field offices included files on range improvement, allotment cases, grazing cases, watershed projects, fuels treatment projects, recreational facilities, forest pest control, as well as job description records, planning documents and any other file likely to contain relevant information. The investigation also included interviews with Mr. Harlow, former BLM employees, and the contractor who worked on the Massacre project.

BLM also searched in DOI's docket file for records of Agent Orange. The docket file contains records dating from 1972. The search identified one reference to the Agent Orange Task Force convened in 1980 due to litigation in which the U.S. government was a party. DOI's agencies were required to produce documents regarding Agent Orange for that litigation. The report states that BLM has no record of what it may have produced. BLM contacted the Torts Branch of the Civil Division of the Department of Justice (DOJ) to obtain a copy of DOI's 1980 document production. DOJ no longer maintains those files and, thus, was unable to provide BLM with any information on what was produced in 1980.

BLM also reviewed the records of its Compliance Assessment—Safety, Health and Environment Program (CASHE) for any information regarding the agency's use of Agent Orange. In October 1993, BLM began auditing its facilities in compliance with the CASHE program. To date, all field offices, with the exception of Milwaukee, Tulsa, and the remote facilities, have been audited for the identification of hazardous materials. These inspections have on occasion identified excess or unusable pesticides or herbicides. The

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information provided by BLM states that the CASHE audits have identified DDT and experimental herbicides sent to BLM. However, the report states that no product labeled or identified as Agent Orange has been found at a BLM facility.

In addition, BLM retained an independent toxicologist to review the agency's documents and the chemicals that DOI used for its defoliation projects in order to determine whether those chemicals constituted Agent Orange. Ultimately, the report concluded that the DOI did not use the chemical known as Agent Orange and therefore, did not expose its employees to it.

The report provides background information on Agent Orange drawn from some of the scientific literature available from the Institute of Medicine, the National Academy of Sciences, the National Institutes of Health and the Environmental Protection Agency. The BLM report states that term Agent Orange refers to a specific herbicide made up of a 1:1 mixture of the n-butyl esters of the herbicides 2,4-dichlorophenoxy acetic acid (2,4-D) and 2,4,5-trichlorophenoxy acetic acid (2,4,5-T). Agent Orange was manufactured for and made available only to the military by a number of commercial manufacturers for use in its jungle defoliation program in Viet Nam. The report notes further that Agent Orange was restricted to military use and had a unique formulation that differed from herbicides available domestically. Agent Orange was used by the military in Vietnam from 1965-1970; its name was derived from the band of color on the 55-gallon drum that served as its container. Color designations, such as purple, blue and white, were also used by the military for other herbicide mixtures.

The BLM identified the herbicides used by the agency and contracted with Dynamac Corporation for a review of those herbicides and a determination of whether or not any of them constitute Agency Orange. According to the information provided by Dynamac, the toxic component of Agent Orange is the high level 2,3,4,8-tetrachlorodibenzo-p-dioxin (TCDD) produced in the manufacturing process. TCDD, a dioxin, is an impurity formed as a by-product of the chemical reactions used in the production of 2,4,5-T which is a component herbicide of Agent Orange. The report notes, however, that the manufacturing process for domestic 2,4,5-T did not result in the high levels of TCDD such as those found in Agent Orange. The primary health concerns with Agent Orange relate to TCDD toxicity, not to exposure to 2,4-D or 2,4,5-T.

The two active herbicide components of Agent Orange 2,4-D and 2,4,5-T were also used in domestic agriculture and by the BLM. BLM's review of agency records showed that the 2,4-D was the herbicide most widely-used in its vegetation management programs between 1965-1975. The report concedes that BLM employees may have been sprayed

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~~with or exposed to pesticides used by the agency during this time period, including 2,4-D and 2,4,5-T, but a distinction is made between those herbicides and Agent Orange. BLM emphasized that while its employees were exposed to herbicides, those herbicides did not constitute Agent Orange due to the different manufacturing processes.~~

The report also notes that the herbicides used by BLM were required to meet federal specifications. BLM's documentation listed approved esters for its projects. In addition, the Defense Logistics Agency confirmed that the Department of Defense (DOD) did not make Agent Orange available as a surplus material, nor did DOD sell Agent Orange to the BLM or any other federal agency.

Some of the pesticides BLM used from 1956-1975 are no longer approved herbicides. For instance, 2,4,5-T was taken off the market in 1983; Silvex is no longer manufactured. BLM records show that the herbicide 2,4-D was the most commonly used. In the few instances when 2,4,5-T was used it was combined with 2,4-D, the two were combined in a 2:1 or 3:1 proportion with 2,4-D being the predominant herbicide. Those mixtures did not produce Agent Orange because of the differences in the manufacturing process for domestic 2,4,5-T and the ratio of the herbicide mixture. BLM also admits that the herbicide Silvex was used. However, the agency notes that the active ingredient in Silvex is 2,4,5-Trichlorophenoxy propanoic acid (2,4,5-TP), not the component of Agent Orange 2,4,5-T, an acetic acid. Because Silvex is not a component of Agent Orange, combining it with other herbicides such as 2,4-D will not result in Agent Orange.

The information received from BLM's state offices was reviewed. BLM's analysis focused on the type of pesticide used, the manner in which it was applied, bid contracts and contract specifications and any additional specifications. Policy memoranda sent from BLM's Washington office to the state offices were also reviewed. The document search focused on the agency's use of pesticides, in particular, herbicides. Special emphasis was placed on the chlorophenoxy herbicides 2,4-D, 2,4,5-T, and Silvex because they were frequently used from 1965 to 1975, and because 2,4-D and 2,4,5-T are components of Agent Orange. The report provides a state-by-state summary of the results of the investigation is provided. No use of Agent Orange was reported.

#### Massacre/Cowhead Spray Project

The Massacre project file was reviewed for information specific to this defoliation project. The area covered by the Massacre project was in Washoe, Nevada, but it was administered out of the BLM's office in Susanville, California. The invitations for bid for herbicides that were used on the project, authorized the use of 2,4-D and/or 2,4,5-T to

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~~control undesirable vegetation. The information on the application of the herbicide lists 2,4-D as the only chemical to be used. Other information in the file corroborates the exclusive use of 2,4-D on the Massacre project. The *Specification Details Form 7310-4* (April 1966), notes that the spray formulation is 2,4-D Ester Low volatile. In addition, a Project Completion Form and an Inspector's Log (June 3, 1968) state that only 2,4-D was used on the project.~~

Some documentation was missing from the file. New projects were required to fill out a form for the Federal Committee on Pest Control (FCPC) which reviewed the use of pesticides by the federal government. The report notes that an FCPC form should have been submitted for the Massacre project, but none was in the file. In summary, the records of the Massacre project contain no evidence that BLM used Agent Orange.

The report also addressed the report of telephone conversation Mr. Harlow submitted in support of his allegations. The telephone report, signed by Mr. Arnold Bullock, Acting District Manager of the Susanville District Office, appears to extend the contract for the Massacre project and states that the chemicals used were equal parts 2,4-D amine and 2,4,5-T Silvex.

At the outset, the report notes that 2,4,5-TP Silvex<sup>1</sup> is a propanoic acid; the herbicide component of Agent Orange 2,4,5-T is an acetic acid. Hence, any combination of 2,4,5-TP and 2,4-D would not result in Agent Orange. Further, the telephone report is inconsistent with the project completion report on the Massacre project. The project files confirm the dates of operation and do not provide any information that the project was extended. In addition, BLM interviewed Mr. Bullock who stated that he never served as the Acting Director for the Susanville District and denied that the handwriting on the form was his. Thus, the authenticity of this document was called into question. The report notes, however, that even if the telephone report is authentic it does not show that BLM used Agent Orange because 2,4,5-TP is a different type of acid and not a component of Agent Orange.

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<sup>1</sup> As Mr. Harlow notes in his comments, the telephone report refers to 2,4,5-T Silvex; BLM's report refers to Silvex as 2,4,5-TP. The chemical abstract information on chlorophenoxy herbicides presented in Attachment 11 of BLM's report states that the chemical abstract name for Silvex is 2-(2,4,5-Trichlorophenoxy) propanoic acid. While there is some inconsistency in the shorthand used to refer to this chemical, the parties are referring to the chemical known as Silvex.

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BLM contacted the Sierra Army Depot and requested any information or records indicating that Agent Orange was sold or given to other federal agencies during the relevant time period. No records of any such transactions were found.

The BLM also interviewed retired employees identified by Linda Hansen, the Field Manager of the Eagle Lake Field Office, as individuals who may have additional information through their work on defoliation projects. Mr. Fred Alway stated that he did not remember what chemicals BLM used. He confirmed that BLM received surplus military equipment, but said no surplus military chemicals were ever received and that BLM purchased its chemicals from commercial vendors. Mr. Alway did not recall seeing any storage drums with orange stripes. Mr. Ed Katlas stated that he knew BLM sprayed 2,4-D and 2,4,5-T by aircraft. He did not recall anyone referring to it as Agent Orange. These witnesses were unable to corroborate Mr. Harlow's allegation that surplus Agent Orange was provided to the BLM by the military.

#### Actions Taken by the Agency

One year after completion of the Massacre project, DOI discontinued its use of 2,4,5-T in populated areas. Since the 1960s, BLM has developed more specific policy and guidance on the use of pesticides. In 1970, BLM established criteria for pesticide use and pest control programs. The agency has also established training courses as well as its "Environmental Impact Statement on Vegetation Treatment of BLM Lands in Thirteen Western States" (EIS) which discusses integrated pest management methods for vegetation treatment including chemical applications. The EIS also lists herbicides approved for use by the agency. As mentioned previously, in 1993 BLM began conducting surveys for hazardous materials at its facilities.

Based on its review, BLM found no indication that the agency's pesticide use differed from other agencies or businesses in the U.S. Nor did the report identify any illegal use of pesticides by BLM.

BLM stated that over the years it has altered its policies and use of pesticides in accordance with advances in technology and scientific knowledge. Improvements in technology have also changed the manner in which herbicides are applied to BLM lands. Global Positioning Systems are now used to keep the aircraft on track for spraying and have largely replaced flagmen. In instances where flagmen are still used protective equipment is provided.

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The Whistleblower's Comments

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Mr. Harlow provided a detailed response to the DOI's report. A brief summary of those comments is presented here.

It is Mr. Harlow's belief that the agency's report, though, voluminous, is lacking in substantive content. He does not agree with the agency's opinion that the chemicals used do not constitute Agent Orange. In addition, he states that on several occasions he picked up surplus materials including orange-striped 55 gallon drums from the Sierra Army Depot in Herlong, California. No signature or documentation was required to obtain those materials. As a result, Mr. Harlow does not find the statements of the DLA officials persuasive in view of his personal recollection. He notes that the general policy statements do not address the common practices regarding surplus military materials that existed at the time.

Additionally, Mr. Harlow disagrees with the BLM's contention that Agent Orange was not used in the U.S. As support for his belief he cites the case of DiPetrillo v. Narragansett Electric Company/Dow Chemical, 729 A.2d 677 (R.I. 1999) as a case involving compensation for domestic use of Agent Orange.<sup>2</sup> He also questions the credibility of the statements provided by Mr. Bullock denying authorship of the telephone record form.

Finally, Mr. Harlow contends that DOI is responsible for the loss of records on the spray projects. He noted the gaps in DOI's information, the missing records and did not find the report's conclusions credible. Mr. Harlow stated that the Department of Veterans Affairs does not require a showing of causal effect between Agent Orange and prostate cancer to provide benefits to veterans. He reiterated his belief that the same benefits should be extended to DOI employees who have developed medical conditions known to result from exposure to Agent Orange.

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<sup>2</sup> The DiPetrillo case involved compensation for exposure to the pesticide 2,4,5-T, a pesticide produced by Dow Chemical. No finding was made in that case that the plaintiff was exposed to Agent Orange or that Agent Orange was used domestically. Due to some confusion regarding what variant of 2,4,5-T the plaintiff was exposed to, only limited references to Agent Orange were allowed. DiPetrillo, 729 A.2d 677, 679 n.3.

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Conclusion

Based on the representations made in the report and as stated above, I have determined, pursuant to section 1213(e)(2), that the findings in the agency's report appear to be reasonable and contain all of the information required by statute.

As required by section 1213(e)(3), a copy of the report and Mr. Harlow's comments has been sent to the Chairmen of the Senate and House Committees on Veterans' Affairs. We have also filed copies of the report and Mr. Harlow's comments in our public file and closed the matter.

Respectfully,



Elaine Kaplan

Enclosures