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Methods for Identifying DoD's Civilian Environmental Work Force

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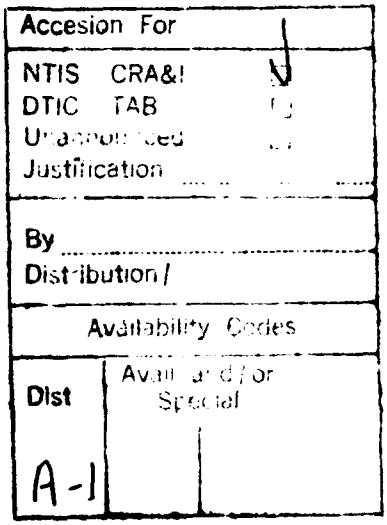

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Methods for Identifying DoD's Civilian Environmental Work Force

Executive Summary

Various methods could be used to identify civilian personnel performing environmental work within the Department of Defense. Our recommendations will assist the Deputy Under Secretary of Defense (Environmental Security) [DUSD(ES)] in establishing a sound education, training, and career development program for environmental professionals and other personnel who work to support programs that may require a significant understanding of environmental issues.

Clearly, while it is important to identify the number of personnel required for environmental positions, it is equally important to be able to identify the total numbers of personnel already accessed and working in environmental positions. This information enables personnel managers to forecast critical personnel shortfalls, to properly focus recruiting efforts, and to secure adequate resources to support authorized staffing and training requirements. It is also needed to enable senior DoD decision-makers to more fully understand the impact of environmental program requirements on the personnel resource base.

During a recent briefing to the DUSD(ES), one of the Components was asked how many personnel work in its environmental program. The briefer candidly responded, "somewhere between 3,000 and 23,000 people." It was pointed out that no system is in place for accurately identifying the total membership of the environmental work force. In part, this situation results from the large number and variety of environmental and/or environmentally-related specialties involved and from some confusion about exactly who comprises the "environmental work force."

We conclude that the total environmental work force* incorporates the following three categories of personnel performing environmental work:

Category 1 comprises personnel assigned any one of 26 occupational specialty codes from which environmental professionals are normally drawn and who spend the majority of their time doing environmental work. These personnel might logically be included in one of the Component's career management programs.

* We emphasize that this discussion only addresses civilian personnel. Substantial numbers of uniformed personnel who may or may not be identifiable through military occupational specialty codes are also involved in environmental work.

Category 2 comprises personnel (professional and nonprofessional) assigned an occupational specialty code other than those in Category 1, who nevertheless spend the majority of their time doing environmental work. For example, this category includes attorneys involved substantially in environmental litigation, public affairs officers at installations with Superfund sites who primarily deal with environmental community relations issues, or wage-grade employees responsible for operating wastewater treatment plants.

Category 3 comprises personnel assigned a nonprofessional occupational specialty code, such as secretaries and clerk typists, who spend the majority of their time in support roles directly related to environmental programs.

In order to meet the needs of DoD senior management, any system for identifying the environmental work force must be capable of accessing and manipulating information about any or all of the three categories described.

Four potential alternatives can be used to identify DoD environmental personnel. These alternatives are to (1) develop new occupational specialty codes, (2) insert flags into existing data bases, (3) match data elements from existing records, and (4) require that installation personnel offices use the skills coding capability of the DoD Civilian Personnel Data System. Alternative 4 (i.e., skills coding) is the key to identifying personnel comprising the total environmental work force.

We recommend the following:

- The DUSD(ES) should conduct a joint meeting with Component senior personnel managers and the Data Administrator, Defense Civilian Personnel Management Service, to explore the feasibility of moving forward with skills coding as a means for identifying the environmental work force.

- The DUSD(ES) should carefully consider the costs of mandatory skills coding in relation to the expected benefits prior to making a final decision.

If the decision to implement is made, we further recommend the following:

- The Data Administrator, Defense Civilian Personnel Management Service, should work closely with Component personnel managers to develop the additional skill codes needed to adequately identify the full range of environmental skills.

- The Defense Logistics Agency should be exempted from skills coding until its existing data base management system is replaced by, or fully integrated with, the Civilian Personnel Data System to provide the skills coding capability.

- The Data Administrator, Defense Civilian Personnel Management Service, should develop and provide to the Components detailed implementing instructions to facilitate skills coding at the installation level.

- The Components should be allotted a minimum of 90 days (from the time a directive is issued) to fully implement skills coding.

- The career program manager within the OSD Civilian Personnel Policy/Equal Opportunity Office should be briefed on using the skills coding approach as a model for identifying total membership of other career fields (e.g., finance and intelligence) in addition to the environmental work force.

Contents

Methods for Identifying DoD's Civilian Environmental Work Force

BACKGROUND

This report outlines methods for identifying all civilian personnel performing environmental work within the Department of Defense. It concludes a larger study designed to assist the Deputy Under Secretary of Defense (Environmental Security) [DUSD(ES)] in establishing a sound education, training, and career development program for environmental professionals and other personnel who work to support programs that may require a significant understanding of environmental issues.

During the past 20 years, the "environmental conscience" of our nation has experienced an unprecedented awakening. We have developed an increased sensitivity to diminishing resources and the potentially disastrous impact of continued environmental indifference and neglect. This sentiment has been, and continues to be, resoundingly echoed by Congress and the states through the passage of a multitude of legislation designed to preserve and protect the environment for future generations. That same sentiment has generated renewed emphasis by DoD in its environmental stewardship responsibilities and the overall process for program management.

The complexity of environmental program management requires DoD activities from the installation to the OSD levels to be staffed with qualified, motivated, and technically competent professionals.[1] Efforts continue across the Components to attract and retain sufficient numbers of high-quality environmental professionals to fill critical technical and managerial positions. Those efforts include the development of staffing models that will accurately predict total personnel requirements for effective, efficient environmental program management.

Clearly, while it is important to identify the number of personnel required for environmental positions, it is equally important to be able to identify the total numbers of personnel already accessed and working in those types of positions. This information is needed to enable personnel managers to forecast critical shortfalls, to properly focus recruiting efforts, and to secure adequate resources to support authorized staffing and training requirements. It is also needed to enable senior DoD decision-makers to more fully understand the impact of environmental program requirements on the personnel resource base.

During a recent briefing to the DUSD(ES), one of the Components was asked how many personnel work in its environmental program. The briefer candidly

[1] LMI Report PL204R1, *The Need for Environmental Awareness Training Within the Department of Defense*, Christopher P. Werle and Douglas M. Brown, June 1993.

responded, "somewhere between 3,000 and 23,000 people." It was pointed out that there is simply no system in place for accurately identifying the total membership of the environmental work force. In part, this situation results from the large number and variety of environmental and/or environmentally-related specialties involved and from some confusion about exactly who comprises the "environmental work force."

"Environmental Work Force" Defined

During previous studies conducted for the Army in support of career program development for environmental professionals (i.e., CP-18), we noted that the bulk of civilian environmental professionals are drawn from the 26 occupational specialty codes shown in Table 1.

Table 1.
Occupational Codes from Which Environmental Professionals are Typically Drawn

Occupation Code	Title	Occupation Code	Title
00020	Community Planning	00480	General Fish & Wildlife Admin.
00028	Environmental Protection Specialist	00482	Fishery Biology
00193	Archaeology	00485	Wildlife Refuge Mgt.
00401	General Biological Science	00486	Wildlife Biology
00408	Ecology	00801	General Engineering
00414	Entomology	00810	Civil Engineering
00415	Toxicology	00819	Environmental Engineering
00430	Botany	00893	Chemical Engineering
00454	Range Conservation	00896	Industrial Engineering
00457	Soil Conservation	01301	General Physical Science
00460	Forestry	01315	Hydrology
00470	Soil Science	01320	Chemistry
00471	Agronomy	01350	Geology

For some personnel, such as 00028 – Environmental Protection Specialist and 00819 – Environmental Engineering, there is no question that associated environmental work would normally be performed by personnel holding these specialties. For others, such as 00801 – General Engineering and 00020 – Community Planning, the exact type of work performed, especially whether or not it is environmental, is not so readily apparent. Clearly, many personnel holding these specialties are doing environmental work. But significant numbers of others are performing tasks having no environmental elements. Unfortunately, job titles are usually the extent of information available. And this is insufficient to

make an accurate determination. Furthermore, job titles have not been captured in any data base that can be readily accessed.

How does one categorize other personnel who do not fall within one of the 26 occupational specialty codes, but who nonetheless perform work in support of the environmental program? Should they not also be included in any tabulation of the total environmental work force? For example, consider the attorney who spends all of his or her time attending to environmental litigation matters or consider the secretary who works exclusively for the installation environmental coordinator. Since these people devote the bulk of their time to supporting the environmental program, they should also be counted as members of the environmental work force.

In view of the foregoing discussion, we conclude that the total environmental work force[2] incorporates the following three categories of personnel performing environmental work:

Category 1 comprises personnel assigned one of the aforementioned 26 occupational specialty codes from which environmental professionals are normally drawn, and who spend the majority of their time doing environmental work. These personnel might logically be included in one of the Component's career management programs.

Category 2 comprises personnel (professional and nonprofessional) assigned an occupational specialty code other than those in Category 1, who nevertheless spend the majority of their time doing environmental work. For example, this category includes attorneys involved substantially in environmental litigation, public affairs officers at installations with Superfund sites who primarily deal with environmental community relations issues, or wage-grade employees responsible for operating waste water treatment plants.

Category 3 comprises personnel assigned a nonprofessional occupational specialty code, such as secretaries and clerk typists, who spend the majority of their time in support roles directly related to environmental programs.

In order to meet the needs of DoD senior management, any system for identifying the environmental work force must be capable of accessing and manipulating information about any or all of the three categories described.

In the next section, we discuss possible alternatives for identifying these personnel.

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[2]We emphasize that this discussion only addresses civilian personnel. Substantial numbers of uniformed personnel who may or may not be identifiable through military occupational specialty (MOS) codes are also involved in environmental work.

ALTERNATIVES FOR IDENTIFYING ENVIRONMENTAL PERSONNEL

After detailed consultations with civilian personnel managers of the DoD Components and the senior staff at the Defense Manpower Data Center (DMDC), Monterey, Calif., we conclude that there are four alternatives that potentially could be used to identify DoD environmental personnel. These alternatives are briefly described below:

Alternative 1: Develop New Occupational Specialty Codes

Implementing alternative 1 would require the creation of a few new occupational specialty codes and the recoding of some personnel from their present specialty code to the new or existing codes that are unique to environmental professionals. For example, consider the following current general biological, physical, and chemical scientist specialty codes:

Existing Code	*Title*
00401	General Biological Science
01301	General Physical Science
01320	Chemistry

Most likely, there are large (albeit unknown) numbers of personnel having these existing specialty codes who principally perform environmental duties. They would be recoded into one of the following proposed new codes:

New Code	*Title*
004XX	Environmental Biological Science
013XX	Environmental Physical Science
013XX	Environmental Chemical Science

Additionally, personnel assigned the following existing engineering occupational specialty codes, who primarily perform environmental duties, would be recoded into the existing 00819 Environmental Engineering code:

Existing Code	*Title*
00801	General Engineering[3]
00810	Civil Engineering
00893	Chemical Engineering

[3]The 00801 General Engineering specialty code requires knowledge of two or more engineering specialties, e.g., 00893 (Chemical Engineering) and 00819 (Environmental Engineering).

If all personnel working in the 26 environmental program-related specialty codes were recoded to environmentally specific specialties as illustrated above, it would be a simple matter to identify the Category 1 personnel by electronically sorting and extracting all personnel having these unique environmental specialty codes. Unfortunately, to accomplish this, the Office of Personnel Management (OPM) would first have to approve establishment of the new occupational specialty codes. This process is difficult and time consuming at best; it is not a short-term solution. However, it is a viable alternative for the long term. And historically, OPM has not been receptive to establishing new specialty codes. The last new code authorized by OPM was for computer engineers in the early 1980s.

A more significant problem of using alternative 1 alone is that it would enable identification of only those personnel in Category 1. Accordingly, if these changes were made, a combination of this and some other alternative would be required to capture all three personnel categories that comprise the entire environmental work force.

Alternative 2: Insert Flags into Existing Data Bases

Implementing alternative 2 requires the use of one of two existing personnel data systems: the DoD Civilian Personnel Data System (CPDS), which is in use by the Air Force, Army, and Navy; and the Defense Business Management System (DBMS), which is in use by the Defense Logistics Agency (DLA).

Inserting data base "flags" might be accomplished in one of two different ways. The first approach requires the insertion of a code (such as the letter "E") into a blank data field that would be used to identify environmental personnel. This would have to be accomplished at the installation level, ideally by the civilian personnel office. Then, this code would be transmitted forward through current periodic reports to the DMDC. For this alternative to work, each Component would require space in their respective civilian personnel data records for this extra code. Our interviews indicate that the DMDC has space but some Components may not. If tasked to add space for the new field, it might be necessary to reprogram the data system at considerable cost.

The second approach would be to recode an existing data field to incorporate a flag or code for environmental personnel. For example, the occupational specialty code field contains five data elements, the first of which is a leading zero and not used (e.g., 01320 and 00801).[4] It might be possible to use that zero in conjunction with the flag, with resulting specialty codes of E1320, E0801, etc. As above, the flag would have to be inserted at the installation level. If this field is not available to all Components, there may be other fields that could be used.

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[4] If the specialty code field is defined as a numeric field, this approach would require reprogramming. Since the leading zero is carried, it is probably an alpha field and reprogramming will not be necessary.

For both of these approaches, a major consideration would be how one would define "environmental personnel." The installation personnel office would need a precise definition to serve as a basis for assigning the flag to a specific personnel record. For example, we could provide a detailed list of specific duties to screen personnel against. We might then require that at least 50 percent of an individual's time be spent on one or more of those duties in order to qualify for the flag. Of course, this point would have to be clarified to the Component's satisfaction. In addition, the quality of the resulting data would depend to a large extent on the willingness of field civilian personnel staff to properly code positions according to the proposed definition.

Alternative 3: Match Data Elements from Existing Records

Alternative 3 involves matching individual personnel records containing skills data with records containing position data, such as automated military authorization documents.

Military authorization documents normally identify all positions required and authorized for assignment at all organizational levels. They typically include total numbers of authorizations by grade and specialty code and a short statement of duty title. They also indicate the specific unit and subelement of assignment. For example, an Army Table of Distribution and Allowances (TDA) for Fort Belvoir, Va., might reflect that the Environmental Division is located within the Directorate of Engineering and Housing and requires four environmental engineers (specialty code 00819) in grades GS-11, GS-12 (two), and GS-13.

Pairing data elements would permit identification of Category 1 personnel with reasonable accuracy. To some extent, Category 3 personnel might also be identified because it follows that everyone assigned to the Environmental Division would be working in the environmental program regardless of occupational specialty.

The problem of how to identify Category 2 personnel would still remain unsolved; one could never really be certain that all personnel were fully accounted for using this procedure. Descriptions of duty titles are sketchy at best; one could only guess what some personnel were really doing on the job. For these reasons, alternative 3 probably is not viable at this time.

Alternative 4: Use the Skills Coding Capability of the Civilian Personnel Data System

Alternative 4 is the only one presently available that allows for the identification of all personnel performing duties in all three categories described earlier. We recommend this alternative for resolving the environmental work force identification issue in the near term. We describe alternative 4 in detail in the next section.

A Solution Using the Civilian Personnel Data System Skills Coding Capability

Skills codes are data codes in the CPDS that reflect employees' current position duties and previous work experience. The skills codes were originally designed by the Air Force in 1985 for use in the referral of candidates for employment, placement of current employees into other positions, and selection for training under competitive procedures. The Air Force's CPDS has since been adopted by DoD for use by all Components (except DLA) with Air Force serving as the Executive Agent. The CPDS gives the Army and Navy the same ability to assign skills codes to their employees.

To identify employee skills, civilian personnel staff members assign a series of up to three "skills code sets" to each employee. Those sets are assigned for each position held, beginning with the most current and including all major positions held throughout one's work history. A skills code set is a nine-character field consisting of three separate three-character groupings. The first grouping is the "skill," the second is the "shred," and the third is the "subshred."

The first three characters of the skills code set is the "skill." It represents the kind of work that is the broadest category (i.e., the basic skill or kind of work that the employee is expected to perform in that position). A skill generally identifies the position by a title recognized within an occupational series.

The second three characters (i.e., shred) modify and add specificity to the skill. Shreds indicate specialties found in skills or occupations and represent a further occupational breakout within a skill.

The final three characters (i.e., subshred) are the narrowest and most specific skill identifier and represent a further occupational breakout within a shred.

Generally, the use of three complete skills code sets adequately describes the most significant skills required by a position, or in our case, the type of work being performed by the person occupying a specific duty position. For example, consider a position classified as a General Engineer (series 00801 with skill code BLB), involving predominantly facility/real property contract management. Under the CPDS, shred code ENG has been established for facility/real property management; subshred code CNM has been established for contract management. Accordingly, the skills code set that identifies this person's present duties would be as follows:

Skill	*Shred*	*Subshred*
BLB General Engineer	ENG Facility/ Real Property	CNM Contract Management

Approximately 35,000 three-character code sets have been developed for CPDS. Some of these are already being used to code environmental skills. For example, an 00801 General Engineer who is in fact working as a Base Environmental Planning Chief within the facility/real property area would be coded as follows:

BLB ENG BEP

This code was developed from the following:

(Skill)	BLB – General Engineer
(Shred)	ENG – Facility/Real Property
(Subshred)	BEP – Base Environmental Planning Chief

As stated, each employee may be assigned up to three skills code sets. Typically, those sets will be used to represent the amount of time (by percentage) the employee spends working in each skill area. For example, to further describe the skills of the General Engineer referenced above, this person's total duties might be coded as follows:

Skill Code	*Shred*	*Subshred*	*Percent of time devoted*
BLB	ENG	BEP	50
BLB	ENG	CNM	25
BLB	ENG	SRK	25

(Note: SRK represents "pollution abatement.")

A sample individual's personnel record from CPDS illustrating the use of skills coding to describe current and historical duty position data is provided at Appendix A.

All presently existing skill codes pertaining to environmental professionals are shown at Appendix B.

It should be apparent at this point that the skills code sets hold the key to identifying the total environmental work force. Assuming that personnel offices have properly assigned skills code sets for everyone they service, the CPDS data base could easily be searched to pinpoint all personnel having an environmental skill, shred, or subshred code within the skills code sets that identify their present duty assignments. The result would be a precise determination of all personnel presently working directly or indirectly to support the environmental program.

For this approach to using CPDS to work, however, some new shred and subshred codes would have to be developed because there are not enough existing codes to adequately describe all possible environmental skills. For example, no code identifies personnel working in the restoration area. Also, no code identifies those nonenvironmental personnel (i.e., Categories 2 and 3) who spend all of their time doing environmental work. To solve this problem, a shred code XXX[5] (that means "environmental program support") could be used to easily capture those non-environmental people.

It is possible to generate the required additional codes at either the macro (shred) or micro (subshred) level. Appendix C lists existing and required shred codes that could be used to identify the entire environmental work force at the macro level. By incorporating subshred codes, further refinement of that listing could be accomplished as shown in Appendix D. Adding the new codes would enable a much more precise identification of the work force than is presently achievable.

Coordination with the Data Administrator, Defense Civilian Personnel Management Service, reveals that creating the needed codes is in fact a simple process that could be done quickly. The only problem would be to decide which codes to use, since some that might be more appropriate are already allocated for other uses (e.g., EPS is already in use for "equipment systems;" therefore it could not be used for "environmental program support"). However, this is not considered to be a significant issue, as other alphabetical combinations are available to create the needed codes.

Current Applications of Skills Coding in the Components

Because the Air Force initially developed the skills coding system, it is not surprising to find that it is leading the other Components in its practical application. This is primarily because skills coding is mandatory for Air Force installations under AF Regulation.[6] The Army and Navy have not issued any specific field directives that would require installations to routinely conduct skills coding. Nevertheless, data obtained from DMDC indicates that the Army and Navy have done a limited amount of coding. However, the quality of that data would be questionable, because no detailed implementation guidance has been issued by higher authority.

As mentioned earlier, the DLA uses a completely different automated personnel system; hence, DLA has done no skills coding. In the case of DLA, however, there are no more than 300 environmental personnel; the majority of those are 00028 Environmental Protection Specialists. Therefore, those specialists

[5] In this report, we use the symbol "XXX" to indicate positions occupied by a code. The specific symbols used can be any that are available and acceptable to system data managers.

[6] Air Force Regulation 40-230, *Skills Coding*, 1 November 1985.

could be captured by specialty codes that are readily identifiable under either system.

To determine the practicality of skills coding, we visited the personnel office at Andrews Air Force Base. This office services approximately 1,600 personnel across the installation. As we expected, they routinely conduct skills coding for Category 1 personnel but not for Categories 2 and 3. This is done because no one has ever been interested in capturing that type of information.

According to a knowledgeable personnel officer, skills coding for Categories 2 and 3 could be accomplished within 1 to 2 weeks as a routine suspense action. When asked how he would identify the latter two categories, he indicated that he could do so in conjunction with the installation environmental coordinator. The environmental coordinator interfaces with the nonenvironmental personnel we would want to identify on a daily basis; hence, he or she would personally know which lawyers, public affairs officers, secretaries, etc. were working on environmental matters. The personnel officer felt it would not be difficult to identify the people in question.

Conclusions and Recommendations

While most Air Force installations could probably complete skills coding without too much effort, this would not necessarily be true for Army, Navy, or DLA activities.

The Army and Navy have the automated system (i.e., CPDS) in place, including the fields used to input skills codes. However, since they have not been using it extensively for that purpose, they would have a heavy initial workload to upgrade the system. Fortunately, they would not be required to assign skills codes for all of an employee's historical positions, rather only for current positions (the Air Force codes historical work position data for other personnel management purposes not related to this inquiry). This level of effort would be sufficient to allow for identification of the current environmental work force.

Of course, DLA would first have to acquire the system before any work could begin. For the three Components most affected (Army, Navy, and in particular, DLA), the cost in time and other resources might not be justifiable in view of the benefits to be realized. Accordingly, a careful cost-benefit analysis would be prudent in advance of any final decision to direct full implementation.

In view of the foregoing discussion, our conclusions are as follows:

- At this time, the only feasible approach for precisely identifying the DoD environmental work force is by using skills coding, a capability inherent within the current structure of the CPDS.

- Presently, only the Air Force mandatorily conducts skills coding; the Army and Navy have the capability, but they have accomplished only limited skills coding since implementation of the Air Force-designed CPDS.

- DLA cannot accomplish skills coding until its data base management system is either replaced by, or integrated with, CPDS.

- Existing skills codes must be modestly expanded to allow complete identification of the three categories of personnel comprising the total environmental work force.

- Baseline skills coding could be reasonably accomplished by the Components within 90 days of the issuance of a directive – provided appropriate resources are available.

- Mandatory skills coding likely will require the diversion of resources that may be needed in higher priority program areas.

- Mandatory skills coding probably will be met by some resistance from senior Army and Navy personnel managers because they have not chosen to fully implement skills coding to date.

Accordingly, we recommend the following:

- The DUSD(ES) should conduct a joint meeting with Component senior personnel managers and the Data Administrator, Defense Civilian Personnel Management Service, to explore the feasibility of moving forward with skills coding as a means for identifying the environmental work force.

- The DUSD(ES) should carefully consider the costs of mandatory skills coding in relation to the expected benefits prior to making a final decision.

If the decision to implement is made, we further recommend the following:

- The Data Administrator, Defense Civilian Personnel Management Service, should work closely with Component personnel managers to develop the additional skill codes needed to adequately identify the full range of environmental skills.

- The DLA should be exempted from skills coding until its existing data base management system is replaced by, or fully integrated with, CPDS to provide the skills coding capability.

- The Data Administrator, Defense Civilian Personnel Management Service, should develop and provide to the Components detailed implementing instructions to facilitate skills coding at the installation level.

- The Components should be allotted a minimum of 90 days (from the time a directive is issued) to fully implement skills coding.

- The career program manager within the OSD Civilian Personnel Policy/Equal Opportunity Office should be briefed on using the skills coding approach as a model for identifying total membership of other career fields (e.g., finance and intelligence) in addition to the environmental work force.

Appendix A

Sample Civilian Personnel Data System Personnel Record Using Skills Codes

PERSONAL DATA - PRIVACY ACT OF 1974

PREPARED 93 FEB 04 21:51 REPORT ON INDIVIDUAL PERSON (PA) AS OF 93 FEB 04 PCN SE300-R01 4M 4M1LFCMS

REASON FOR REQUEST-BIRTHDAY REVIEW

EMPLOYEE PROMOTION BRIEF
PART A (CURRENT DATA)

THE FOLLOWING INFORMATION IS YOUR DATA CONTAINED IN THE COMPUTERIZED SYSTEM WHICH RELATES TO THE AUTOMATED PROMOTION AND PLACEMENT REFERRAL SYSTEM (PPRS). PLEASE REVIEW THE DATA CAREFULLY AND RETURN TO AFFIRMATIVE EMPLOYMENT BY 08MAR93.

1. IF YOU HAVE QUESTIONS OR NEED HELP IN REVIEWING THIS BRIEF YOU SHOULD CONTACT YOUR SUPERVISOR. IF YOU IDENTIFY AN ITEM THAT NEEDS CORRECTION, MAKE THE ANNOTATION IN RED OR BLUE INK, ATTACH ANY NECESSARY SUPPORTING DOCUMENTS OR EXPLANATION AND RETURN TO AFFIRMATIVE EMPLOYMENT. IF THE DATA IS ACCURATE PLEASE SIGN THE LAST PAGE AND RETURN TO AFFIRMATIVE EMPLOYMENT. YOU MAY RETAIN A COPY FOR YOUR PERSONAL FILES. IF THE BRIEF IS NOT RETURNED, THE INFORMATION WILL BE USED AS PRINTED AND ANY MERIT PROMOTION CONSIDERATION WILL BE BASED ON THIS INFORMATION.

Doe, Jane J. 123-45-6789 SERVICE COMPUTATION DATE: 15OCT87 ORGANIZATION:
4M1LFCMS 0080 CIVIL ENGINEERING SQ 0000

CURRENT POSITION DATA

POSITION TITLE: ENVIRONMENTAL ENGINEER
PAY PLAN: GS DT-START: 01JAN92 SUPV-LVL: NON-SUPERVISORY
OCC-SRS: 0819 OFF-SYMBOL: CEV WORK SCH: FULL TIME
GRADE: 12 STEP: 02

OCCUPATIONAL CERTIFICATE
NOT APPLICABLE
NOT APPLICABLE
NOT APPLICABLE
NOT APPLICABLE
NOT APPLICABLE

ORGANIZATIONAL FUNCTION: CIVIL ENG

	SKILLS		SHREDS	SUBSHREDS	PERCENT
BPL	ENVIRONMENTAL ENGINEERING	ENV	ENVIRONMENTAL PLANNING	NONE	75
DTJ	HYDROLOGIST		NONE	NONE	25
	NONE		NONE	NONE	

EDUCATION DATA
EDUCATION LEVEL HIGH: BACHELOR'S DEGREE
TOTAL CREDIT HRS: 177

HIGH CREDIT HOURS: 0156
TYPE-CREDIT-HRS: SEMESTER HOURS

ADDITIONAL EDUCATION	LEVEL	DISCIPLINE	CREDIT HOURS
		NOT APPLICABLE	
		NOT APPLICABLE	
		NOT APPLICABLE	

AWARDS DATA

AWARD-TYPE	DATE

ACAD-DISCIP-HIGH
0910-MECHANICAL ENGINEERING
ACAD-LEVEL-YR-HIGH: 87

PERFORMANCE APPRAISAL INFORMATION RATING: EXCELLENT
PROMOTION ELEMENTS: 999789999 DATE: 01SEP92

LANG-IDENT	LANG-PROF-LEVEL
NOT APPLICABLE	NOT APPLICABLE
NOT APPLICABLE	NOT APPLICABLE
NOT APPLICABLE	NOT APPLICABLE
NOT APPLICABLE	NOT APPLICABLE

PERSONAL DATA - PRIVACY ACT OF 1974

PREPARED 93 FEB 04 21:51 REPORT ON INDIVIDUAL PERSON (PA) AS OF 93 FEB 04 PCN SE300-R01 4M 4MILFCMS

EMPLOYEE PROMOTION BRIEF
PART B WORK HISTORY DATA

Doe, Jane J. 123-45-6789

THE FOLLOWING GUIDELINES ARE USED FOR CODING YOUR EXPERIENCE RECORD:

FOR CURRENT GS/GM EMPLOYEES

IF CURRENT GRADE IS:	CODE GS OR EQUIVALENT EXPERIENCE:
14 TO 15	11 AND UP
12 TO 13	7 AND UP
11	5 AND UP
7 TO 10	4 AND UP
1 TO 6	3 GRADES BELOW CURRENT GRADE (OR 10 YEARS)

FOR CURRENT FWS EMPLOYEES

IF CURRENT LEVEL IS:	CODE FS OR EQUIVALENT EXP:
WAGE SUPERVISOR (WS)	ALL WS, WL & HIGHEST WG
WAGE LEADER (WL)	ALL WS, WL, & 3 HIGHEST WG GRADE
WAGE GRADE (WG)	ANY WS & WL AND
WG-8 AND UP	ALL WG-5 AND UP
WG-1 TO WG-7	3 GRADES BELOW CURRENT GRADE (OR 10 YEARS)

WORK-HISTORY PP SRS GR ORGANIZATIONAL FUNCTION	EXPERIENCE TYPE	SUPV LVL	SKILL %	DT-STARTED	DT-ENDED	CMD
GS 0819 12 CIVIL ENG	FEDERAL CIVIL SERVICE	NON-SUPERVISORY				
SKILLS	SIMREDS	SUBSIMREDS				
BPL-ENVIRONMENTAL ENGINEERING	ENV-ENVIRONMENTAL PLANNING	-NONE	75	01JUL91	31MAY92	MAC
DTJ-HYDROLOGIST	-NONE	NONE	25			
-NONE	-NONE	-NONE				
GS 0810 11 CIVIL ENG		MILITARY SERVICE	SUPERVISOR (CSRA)			
BNW-CIVIL ENGINEER	NONE	NONE	00	01OCT90	01JUL91	
-NONE	-NONE	-NONE	00			
-NONE	-NONE	-NONE				
GS 0819 11 CIVIL ENG		MILITARY SERVICE	SUPERVISOR (CSRA)			
BPL-ENVIRONMENTAL ENGINEERING	CNP-CONTRACT PROGRAMMING	-NONE	75	01JUL89	30SEP90	
BPL-ENVIRONMENTAL ENGINEERING	ENV-ENVIRONMENTAL PLANNING	-NONE	25			
-NONE	-NONE	-NONE				
GS 0810 09 CIVIL ENG		MILITARY SERVICE	NON-SUPERVISORY			
BPR-MECHANICAL ENGINEER	-NONE	-NONE	00	01JUL88	30JUN89	
-NONE	-NONE	-NONE	00			
-NONE	-NONE	-NONE				
GS 0810 07 CIVIL ENG		MILITARY SERVICE	NON-SUPERVISORY			
BNW-CIVIL ENGINEER	PTU-CIVIL ENGINEERING	CNM-CONTRACT	MANAGEMENT	00	15OCT87	30JUN88
-NONE	-NONE	-NONE		00		
-NONE	-NONE	-NONE				
-NONE	-NONE	-NONE				
-NONE	-NONE	-NONE				
-NONE	-NONE	-NONE				
-NONE	-NONE	-NONE				
-NONE	-NONE	-NONE				
-NONE	-NONE	-NONE				

EMPLOYEE PROMOTION BRIEF
PART B WORK HISTORY DATA

Doe, Jane J. 123-45-6789

WORK-HISTORY PP SRS GR / SKILLS	ORGANIZATIONAL FUNCTION / SHREDS	EXPERIENCE TYPE / SUBSHREDS	SUPV LVL / SKILL %	DT-STARTED	DT-ENDED	CMD
-NONE	-NONE	-NONE				
-NONE	-NONE	-NONE				
-NONE	-NONE	-NONE				
-NONE	-NONE	-NONE				
-NONE	-NONE	-NONE				
-NONE	-NONE	NONE				
-NONE	-NONE	-NONE				
-NONE	-NONE	-NONE				
-NONE	-NONE	NONE				
-NONE	-NONE	-NONE				
-NONE	-NONE	-NONE				
-NONE	-NONE	-NONE				
-NONE	-NONE	-NONE				
-NONE	-NONE	-NONE				
-NONE	-NONE	-NONE				
-NONE	-NONE	-NONE				
-NONE	-NONE	-NONE				
-NONE	-NONE	-NONE				
-NONE	-NONE	NONE				
-NONE	-NONE	-NONE				
-NONE	-NONE	-NONE				
-NONE	-NONE	NONE				
-NONE	-NONE	-NONE				
-NONE	-NONE	-NONE				
NONE	-NONE	-NONE				
-NONE	-NONE	NONE				
-NONE	NONE	-NONE				

PERSONAL DATA PRIVACY ACT OF 1974

PREPARED 93 FEB 04 21:51 REPORT ON INDIVIDUAL PERSON (PA) AS OF 93 FEB 04 PCN SE300-R01 4M 4MILFCMS

PERSONAL DATA
PART C
YOUR PERSONAL DATA BRIEF

Doe, Jane J. SSN: 123-45-6789 OFFICE SYMBOL: CFV DUTY STATION (WHERE YOU WORK): ANDREWS AFB MD

CPCN (POSITION NUMBER THAT YOU FILL): 4M21385002 BARG UNIT STATUS: AF7777 ELIGIBLE; NOT COVERED

POSITION SENSITIVITY: 1-NONCRITICAL SENSITIVE FLSA (FAIR LABOR STANDARDS ACT): E-EXEMPT

GRADE: 12 STEP: 02 SALARY: $42,984.00 PAY BASIS: PA-PER ANNUM PAY RATE DETERMINANT
6 SPECIAL RATE

CLEARANCE: SECRET VETERAN PREFERENCE APPT: 1-NO PREFERENCE VETERAN PREFERENCE RIF: 1-NO PREFERENCE

SCD (SERVICE COMPUTATION DATE FOR LEAVE PURPOSES-LENGTH OF SERVICE): 15OCT87

TENURE: 2-OP-2 CAR-COND EMP-CAP EMP SVC PROB/TRIAL/LN EMP SVC TRIAL WGI (WITHIN GRADE INCREASE) NEXT ONE DUE: 11JUL93

RETIREMENT: K FERS AND FICA FEGLI (FEDERAL EMPLOYEE GROUP LIFE INSURANCE):
R-WAIVED ALL LIFE INSURANCE

FEHB (FEDERAL EMPLOYEE HEALTH BENEFIT) CODE: ZZ-NOT APPLICABLE

TSP - (THRIFT SAVINGS PLAN) STATUS:	Y
TSP-STATUS DATE:	12JAN92
TSP-SCD:	01JUL91
TSP-RATE:	05
TSP-EMPL-AMT:	0000
TSP-EMPL-RATE-C:	040
TSP-EMPL-RATE-F:	040
TSP-EMPL-RATE-G:	020
TSP-STATUS DATE:	DATE ENROLLED/CHANGED
TSP-SCD:	REFLECTS ALL FEDERAL CIVILIAN SERVICE FOR FERS EMPLOYEES; USED TO DETERMINE THE PERIOD OF VESTING IN THE 1% AUTOMATIC AGENCY CONTRIBUTION.
TSP-RATE:	PERCENT OF CONTRIBUTION
TSP-EMPL-AMT:	REFLECTS FLAT RATE CONTRIBUTION PER PAY PERIOD, IF THIS OPTION WAS SELECTED
TSP-EMPL-RATE:	C, F, AND G--REFLECT THE PERCENT OF YOUR TOTAL TSP CONTRIBUTION DESIGNATED FOR THESE OPTIONS
TSP-STATUS:	Y - ELECTED TO CONTRIBUTE N - ELECTED NOT TO CONTRIBUTE T - ELECTED TO TERMINATE I - INELIGIBLE TO PARTICIPATE E - ELIGIBLE TO PARTICIPATE

I HAVE BEEN PROVIDED AN OPPORTUNITY TO REVIEW MY PROMOTION BRIEF AND I CERTIFY THAT THE INFORMATION IS ACCURATE AND COMPLETE.

EMPLOYEE SIGNATURE DUTY PHONE DATE

RETURN TO: CIVILIAN PERSONNEL OFFICE (MSCAP)
89TH MSSQ/MSCAP, STOP 10

CCPO CERTIFICATION SIGNATURE DATE
PCN SE300-R01 4M PLMBRF

EMPLOYEE PROMOTION BRIEF
PART B TRAINING DATA

Doe, Jane J. 123-45-6789

TRAINING TYPE	TRAINING COURSE	DATE COMPLETED	HOURS
*ENVIRONMENT PROTEC SPEC CRS OTHER	ENVIRON RESTOR PM	24JUL92	0080
AFIT HEAT-VENT-AIR/C561	HEAT VENTIL AIR COND	01MAR89	0160
AFIT CONTR PREP/MGT425	CONTRACT PREP & MGMT	01JAN88	0080

Appendix B

Existing Skill Codes Related to Environmental Professionals

Existing Skill Codes Related to Environmental Professionals

Code	Title
1RA	Radiological Health
AAT	Community Planner
AAW	Environmental Protection Specialist
AFW	Archaeologist
ATX	Biologist
AUE	Ecologist
AUS	Entomologist
AUW	Botanist
AVL	Range Conservationist
AVT	Soil Conservationist
AWB	Forester
AWF	Soil Scientist
AWH	Agronomist
AWM	Fish, Wildlife Administrator
AWP	Fishery Biologist
AWS	Wildlife Refuge Manager
AWU	Wildlife Biologist
BEP	Base Environmental Planning Chief
BLB	General Engineer
BNM	Landscape Architect
BNP	Architect
BNW	Civil Engineer
BPL	Environmental Engineer
BPR	Mechanical Engineer
BPV	Electrical Engineer
CCT	Chemical Engineer
CNM	Contract Management
CNP	Contract Programming
DSU	Physical Scientist
DTJ	Hydrologist
DTN	Chemist
DUM	Geologist
EEP	Engineer/Environmental Planning Manager
END	Environmental Design Integration
ENG	Facility/Real Property
ENV	Environmental Planning
EOM	Environmental Operations and Maintenance
EPC	Command Environmental Planning Manager
EPM	Environmental/Contract Program Manager
IAC	Implementation/Compliance
JVT	Insect and Rodent Control
KEY	Key Environmental Manager
NRP	Natural Resource Planner
PAG	Industrial Hygiene
PTU	Civil Engineering
RMD	Toxicologist
SRK	Pollution Abatement
SRN	Health Activities
UTR	Utility Regulation
XXX	More than capacity to code

Table B-1.
Environmental Professionals Occupational Codes, Skill Codes, and Shreds/Subshreds

Occ. code	Skill	Shred	Sub-shred	Shred/subshred title
		Community Planner		
0020	AAT	CNP	—	Environmental Design Integration
0020	AAT	EPC	—	Command Environmental Planning Manager
0020	AAT	EPM	—	Environmental/Contract Program Manager
		Environmental Protection Specialist		
0028	AAW	—	—	(No shred)
0028	AAW	EPC	—	Command Environmental Planning Manager
0028	AAW	EPM	—	Environmental/Contract Program Manager
0028	AAW	IAC	—	Implementation/Compliance
0028	AAW	SRK	—	Pollution Abatement
0028	AAW	XXX	—	More than capacity to code
		Archaeologist		
0193	AFW	—	—	(No shred)
		Biologist		
0401	ATX	EPM	—	Environmental/Contract Program Manager
0401	ATX	IAC	—	Implementation/Compliance
0401	ATX	NRP	—	Natural Resource Planner
0401	ATX	NRP	EPC	Natural Resource Planner/Command Environmental Planning Manager
0401	ATX	SRK	—	Pollution Abatement
		Ecologist		
0408	AUE	—	—	(No shred)
		Entomologist		
0414	AUS	—	—	(No shred)
		Toxicologist		
0415	RMD	—	—	(No shred)
		Botanist		
0430	AUW	—	—	(No shred)
		Range Conservationist		
0454	AVL	—	—	(No shred)
0454	AVL	SRK	—	Pollution Abatement

Source: Table 465, Civilian Personnel Data System.

Table B-1.
Environmental Professionals Occupational Codes, Skill Codes, and Shreds/Subshreds (Continued)

Occ. code	Skill	Shred	Sub-shred	Shred/subshred title
		Soil Conservationist		
0457	AVT	—	—	(No shred)
		Forester		
0460	AWB	—	—	(No shred)
0460	AWB	SRK	—	Pollution Abatement
		Soil Scientist		
0470	AWF	—	—	(No shred)
		Agronomist		
0471	AWH	—	—	(No shred)
0471	AWH	SRK	—	Pollution Abatement
		General Fish and Wildlife Administrator		
0480	AWM	—	—	(No shred)
		Fishery Biologist		
0482	AWP	—	—	(No shred)
		Wildlife Refuge Manager		
0485	AWS	—	—	(No shred)
		Wildlife Biologist		
0486	AWU	—	—	(No shred)
0486	AWU	SRK	—	Pollution Abatement
		General Engineer		
0801	BLB	ENG	BEP	Fac./Real Prop. — Base Environ. Planning Chief
0801	BLB	ENG	EEP	Fac./Real Prop. — Engineer/Environ. Planning Mgr.
0801	BLB	ENG	ENV	Fac./Real Prop. — Environmental Planning
0801	BLB	ENG	EPC	Fac./Real Prop. — Cmd./Environ. Planning Mgr.
0801	BLB	ENG	EPM	Fac./Real Prop. — Environ./Contract Program Mgr.
0801	BLB	ENG	IAC	Fac./Real Prop. — Implementation/Compliance
		Landscape Architect		
0807	BNM	—	—	(No shred)
0807	BNM	SRK	—	Pollution Abatement

Source: Table 465, Civilian Personnel Data System.

Notes: Fac./Real Prop. = Facility/Real Property; Environ. = Environmental; Mgr. = Manager; and Cmd. = Command

Table B-1.
Environmental Professionals Occupational Codes, Skill Codes, and Shred/Subshreds (Continued)

Occ. code	Skill	Shred	Sub-shred	Shred/subshred title
			Architect	
0808	BNP	ENV	—	Environmental Planning
			Civil Engineer	
0810	BNW	PTU	ENV	Civil Engineering — Environmental Planning
0810	BNW	PTU	IAC	Civil Engineering — Implementation/Compliance
			Environmental Engineer	
0819	BPL	—	—	(No shred)
0819	BPL	CNM	—	Contract Management
0819	BPL	CNP	—	Contract Programming
0819	BPL	END	—	Environment Design Integration
0819	BPL	ENV	—	Environmental Planning
0819	BPL	EOM	—	Environmental Operations and Maintenance
0819	BPL	IAC	—	Implementation/Compliance
0819	BPL	KEY	—	Key Environmental Manager
0819	BPL	SRK	—	Pollution Abatement
0819	BPL	SRN	—	Health Activities
0819	BPL	SRN	JVT	Health Activities — Insect and Rodent Control
0819	BPL	SRN	PAG	Health Activities — Industrial Hygiene
0819	BPL	SRN	XXX	Health Activities — More than capacity to code
0819	BPL	SRN	1RA	Health Activities — Radiological Health
0819	BPL	UTR	—	Utility Regulation
0819	BPL	XXX	—	More than capacity to code
0819	BPL	XXX	XXX	More than capacity to code
			Mechanical Engineer	
0830	BPR	ENG	ENV	Fac./Real Prop. — Environmental Planning
			Electrical Engineer	
0850	BPV	ENG	ENV	Fac./Real Prop. — Environmental Planning
			Chemical Engineer	
0893	CCT	SRK	—	Pollution Abatement

Source: Table 465, Civilian Personnel Data System.
Note: Fac./Real Prop. = Facility/Real Property.

Table B-1.
Environmental Professionals Occupational Codes, Skill Codes, and Shred/Subshreds (Continued)

Occ. code	Skill	Shred	Sub-shred	Shred title
Physical Scientist				
1301	DSU	EPM	—	Environmental/Contract Program Manager
1301	DSU	IAC	—	Implementation/Compliance
1301	DSU	KEY	—	Key Environmental Manager
1301	DSU	SRK	—	Pollution Abatement
Hydrologist				
1315	DTJ	SRK	—	Pollution Abatement
Chemist				
1320	DTN	SRK	—	Pollution Abatement
Geologist				
1350	DUM	SRK	—	Pollution Abatement

Source: Table 465, Civilian Personnel Data System.

Appendix C

Shred Codes Needed to Identify Environmental Personnel

Shred Codes Needed to Identify Environmental Personnel

Shred title	Existing code
Environmental Planning	BEP/EEP/EPC
Environmental Engineering	BPL
Contract Management	CNM
Environmental Design	END
Environmental Operations and Maintenance	EOM
Environmental Program Management	EPM/KEY
Environmental Compliance	IAC
Natural Resources	NRP
Pollution Abatement	SRK
Health Activities	SRN
Radon Reduction	1RA
Pest Management	JVT
Industrial Hygiene	PAG
Utility Regulation	UTR
Pollution Prevention	None
Environmental Documentation	None
Environmental Research and Development	None
Water Resource Management	None
Air Pollution Abatement	None
Hazardous Materials Management	None
Hazardous Waste Management	None
Solid Waste Management	None
Noise Abatement	None
Spill Contingency Planning	None
Environmental Restoration	None
Asbestos Abatement	None
Other Environmental Programs	None
Environmental Program Support	None

Appendix D

Shred and Subshred Codes Needed to Identify Environmental Personnel

Shred and Subshred Codes Needed to Identify Environmental Personnel

Shred title	Existing code	Subshred title	Existing code
Environmental Program Manager	EPM/KEY	Planning/Coordination	EPC/BEP/EEP/ENV
		Contracting	CNM
		Administration	None
		Resource Management	None
		Communications	None
		Safety	None
		Training	TTN
Environmental Compliance	IAC	Environmental Engineering	BPL
		Environmental Design	END
		Environmental O&M	EOM
		Pollution Abatement	SRK
		Health Activities	SRN
		Industrial Hygiene	PAG
		Utility Regulation	UTR
		Radiological Health	1RA
		Air Programs	None
		Water Programs	None
		Drinking Water Program	None
		FIFRA Program	None
		Toxics Program	None
		Noise Program	None
		RCRA Program	None
		Asbestos Abatement	None
		Environmental R&D	None
Environmental Restoration	None	Active Sites	None
		Formerly Used Defense Sites	None

Notes: O&M = operations and maintenance; FIFRA = Federal Insecticide, Fungicide, and Rodenticide Act; RCRA = Resources Conservation and Recovery Act.

Shred title	Existing code	Subshred title	Existing code
Hazardous Waste Management	None	Hazardous Materials	None
		Pollution Prevention	None
		Underground Storage Tanks	None
		Emergency Response	None
Natural Resource Management	NRP	Forestry	None
		Fish and Wildlife	None
		Land	None
		Historic/Cultural Resources	None
		NEPA Documentation	None
		Pest Control	JVT
Environmental Program Support	None		None

Note: NEPA = National Environmental Policy Act.

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13. ABSTRACT *(Maximum 200 words)*

This report precisely defines the phrase "DoD civilian environmental work force" and discusses various methods that could be used to identify personnel who comprise that work force. It describes three categories of personnel comprising the work force as follows: Category 1 comprises personnel assigned any one of 26 occupational specialty codes from which environmental professionals are normally drawn; Category 2 comprises personnel (professional and nonprofessional) assigned an occupational specialty code other than those in Category 1, who nevertheless spent the majority of their time doing environmental work; and Category 3 comprises personnel assigned a nonprofessional occupational specialty code who spend the majority of their time in support roles directly related to environmental programs. The report also describes four methods that could be used to identify total civilian membership of the environmental work force. These methods include developing new occupational specialty codes, inserting flags into existing data bases, matching data elements from existing records, and using the skills coding capability of the DoD Civilian Personnel Data System. The report recommends using skills coding as the only feasible solution for near-term application.

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