POSITION DESCRIPTION COVER SHEET

REASON FOR THIS POSITION		
1. NEW ☒	2. IDENTICAL ADDITION TO THE ESTABLISHED PD NUMBER ☐ NHQENG89012ns	3. REPLACES PD NUMBER

RECOMMENDED

4. TITLE	5. PAY PLAN	6. SERIES	7. GRADE
Agricultural Engineer	GS	890	12

8. WORKING TITLE *(Optional)*	9. INCUMBENT *(Optional)*
Agricultural Engineer	

OFFICIAL

10. TITLE
Agricultural Engineer

11. PP	12. SERIES	13. FUNC	14. GRADE	15. DATE Month	Day	Year	16. I/A	17. CLASSIFIER
GS	890	51	12				☐ Yes ☐ No	

8. ORGANIZATIONAL STRUCTURE *(Agency/Bureau)*

1st	Natural Resources Conservation Service	5th	
2nd		6th	
3rd		7th	
4th		8th	

SUPERVISOR'S CERTIFICATION

I certify that this is an accurate statement of the major duties and responsibilities of the position and its organizational relationships and that the position is necessary to carry out Government functions for which I am responsible. This certification is made with the knowledge that this information is to be used for statutory purposes relating to appointment and payment of public funds and that false or misleading statements may constitute violations of such statute or their implementing regulations.

19. SUPERVISOR'S SIGNATURE	20. DATE	22. SECOND LEVEL SUPERVISOR'S SIGNATURE	23. DATE

21. SUPERVISOR'S NAME AND TITLE	24. SECOND LEVEL SUPERVISOR'S NAME AND TITLE

FACTOR EVALUATION SYSTEM

FACTOR	25. FLD/BMK	26. POINTS	FACTOR	25. FLD/BMK	26. POINTS
1. Knowledge Required	FL 1-7	1250	6. Personal Contacts	FL 6-2	
2. Supervisory Controls	FL 2-4	450	7. Purpose of Contacts	FL 7- C	145
3. Guidelines	FL 3-4	450	8. Physical Demands	FL 8-2	20
4. Complexity	FL 4-4	225	9. Work Environment	FL 9-2	20
5. Scope and Effect	FL 5-4	225		TOTAL POINTS	2785
				GRADE	GS-12

CLASSIFICATION CERTIFICATION

I certify that this position has been classified as required by Title 5, US Code, in conformance with standards published by the OPM or, if no published standard applies directly, consistently with the most applicable published standards.

29. SIGNATURE	30. DATE
Darlene Locke	10/23/09

31. NAME AND TITLE

Darlene Locke, Human Resources Specialist, Employment and Classification Team, Washington, D.C.

32. REMARKS:	33. OPM CERTIFICATION NUMBER

Reference: OPM JFS PROFESSIONAL WORK ENGINEERING & ARCHITECTURE GROUP, NOV 2008;
FLSA – Exempt.

MASTER RECORD/INDIVIDUAL POSITION DATA

THIS SIDE TO BE COMPLETED BY THE CLASSIFIER

A. KEY DATA

1. FUNCTION (1)	2. DEPT CD. /AGCY-BUR-CD. (4)	3. SON (4)	4. MR. NO. (6)	5. GRADE (2)	6. IP NO. (8)
	AG 16				

B. MASTER RECORD

1. PAY PLAN (2)	2. OCC. SERIES (4)	3. OCC. FUNC. CD. (2)	4. OFF. TITLE CD. (5)	5. OFFICIAL TITLE (38)
GS		51		

6. HQ. FLD. CD. (1)	7. SUP. CD. (1)	8. CLASS STD. CD. (1)	9. INTERDIS. CD. (1)	10. DT CLASS (6)
1 = HQ 2 = FLD	1 = Sup. SGEG 3 = Mgr. SGEG 4 = Sup. CSRA 5 = Mgmt. CSRA 6 = Leader LGEG 8 = All Others	X = New Standard Applied Blank = NA	N = No Y = Interdis	MO DAY YEAR

11. EARLY RET. CD. (1)	12. INACT/ACT (1)	13. DT. ABOL. (6)	14. DT. INACT/REACT (6)	15. AGENCY USE (10)
1 = Primary 2 = Secondary 3 = Foreign Svc. Blank = NA	I = Inactive A = Active	MO DAY YEAR	MO DAY YEAR	

16. INTERDISCIPLINARY SERIES (40) (4) Per Block

17. INTERDISCIPLINARY TITLE CODE (50) (5) Per Block

C. INDIVIDUAL POSITION

1. FLSA CD. (1)	2. FIN. DIS. REQ. (1)	3. POS. SCHED. (1)	4. POS. SENS. (1)	5. COMP. LEV. (4)
E = Exempt N = Nonexempt	0 = None 1 = CD 219 2 = CD 220 3 = SF 278 4 = AD 392 5 = SF 849	A = Sched A B = Sched B C = Sched C 0 = Excepted but not A,B,C	0 = Nonsensitive 1 = Noncritical 2 = Critical Sense	

6. WK. TITLE CODE (4) 7. WK. TITLE (38)

8. ORG. STR. CODE (18): 1st 2nd 3rd 4th 5th 6th 7th 8th

9. VAC REV CODE (1): 0 = Position Action No Vacancy; A = No Change; B = Lower Grade; C = Higher Grade; D = Different title and/ or series; E = New Position/New FTE

10. TARGET GD.	11. LANG. REQ. (2)	12. PROJ. DTY. IND. (1)	13. DUTY STATION (9) State (2)	City (4)	County (3)	14. BUS. CD. (4)	15. DT. LST. AUDIT (6)	16. PAS. IND. (1)	17. DATE EST.
		Blank = NA Y = Yes					MO DAY YEAR	Blank=NA 1 = PAS	MO DAY YEAR

18. GD. BASIS. IND (1)	19. DT.REQ. REC. (6)	20. NTE. DT. (6)	21. POS.ST. BUD (1)
1 = Rev. when vacant 2 = Impact of Person 3 = Sup./SGEG 4 = Sup./Program 5 = RGEG 6 = Policy Analysis G E G 7 = Equipment Devel. Guide 8 = Agency Use 9 = Agency Use ALPHAS = Agency Use	MO DAY YEAR	MO DAY YEAR	Y = Perm N = Other

22. MAIN. REV./CLASS.ACT. CD. (2) *(1st Digit = Activity and 2nd Digit = Results)*

3

Normal Act: 1 = Desk Audit; 2 = Sup. Audit; 3 = Paper Rev.; 4 = PME/Activity Rev.

Maintenance Review Act: 5 = Desk Audit; 6 = Sup. Audit; 7 = Paper Rev.; 8 = Panel Rev.

Results: 1 = No Action Req.; 2 = Minor PD Change; 3 = New PD Req.; 4 = Title Change; 5 = Series Change; 6 = Pos. Upgrade; 7 = Pos. Downgrade; 8 = New Pos.; 9 = Other

23. DATE EMP. ASGN. (6)	24. DATE ABOL. (6)	25. INACT/ ACT(1)	26. DATE INACT/ REACT (6)	27. ACCTG. STAT. (4)	28. INT. ASGN. SER. (4)	29. AGENCY USE (8)
MO DAY YEAR	MO DAY YEAR	I = Inact. A = Act.	MO DAY YEAR			

30. CLASSIFIER'S SIGNATURE: Darlene Locke

31. DATE: 10/23/09

32. REMARKS

Form AD-332 (Revised 4/86)

STANDARD POSITION DESCRIPTION

Official Title: Agricultural Engineer
Working Title: Agricultural Engineer
ClassificationGS-890 - 12
Location: State Level

Date: October 23, 2009
Classified by: NHQ-HRMD
Number: NHQ89012
Supervisory Code:8

NOTE: This is a standard position description and cannot be modified without the approval from the Human Resources Management Division, Employment & Classification Team, Washington, D.C.

INTRODUCTION

a. This is an engineering position located in the state office. The incumbent serves as state engineer and is responsible for providing technical guidance and leadership in the overall agricultural engineering function in planning, design, installation, and maintenance of the engineering phases of soil and water conservation practices as well as watershed flood protection programs as the Agricultural Engineer.

b. Responsible for providing and maintaining a safe and healthy work environment, requiring subordinates and others to use safety precautions when exposed to dangerous objects, chemicals, extreme temperatures, etc.

DUTIES AND RESPONSIBILITIES

1. Engineering Practice Design (50%)

a. Oversees the planning, design and construction of engineering practices such as water management, animal waste management, erosion control, flood control, wetland creation or restoration, and other conservation practices needing engineering guidance. Makes periodic on-site inspections of the engineering work for technical adequacy and adherence to standards and policy to assure work is being carried out according to drawings and specifications, and to identify major problems not covered by precedents or established policies.

b. Interprets plans and specifications for contractors, solving problems at local level as to proper interpretation of specifications. Directs calculations of earthwork, concrete, steel, conduits, and other materials, and prepares construction estimates and bills of materials.

c. Serves as or directs the contracting officer's representative for the administration of construction contracts. Plans and conducts pre-bid site showing, approves construction schedules, monitors work for compliance with contract requirements, verifies the accuracy of invoices and prepares receiving reports for plan estimates, directs the quality assurance program and supervises the government inspectors, recommends contract modifications and other duties as delegated to contracting officer's representative.

d. Provides production engineering leadership and direction to the assigned area and helps provide engineering continuity and coordination across areas. Represents agency at meetings with state agency and Corps of Engineers personnel to review and decide on action for projects in the designated geographical location(s).

e. Provides the assigned area/state, engineering assistance on both projects and non-project activities, as outlined in the annual plan of operations (APO) and strategic plan.

f. Develops workload analysis, priorities, and scheduling recommendations identified by the strategic plan for the geographical location assigned.

2. Quality Assurance (25%)

a. Makes site investigations and feasibility studies; field checks designs as prepared/approved by the State Conservation Engineer (SCE) of structural works of improvement prior to contracting; prepares or reviews field designs and preliminary and final drawings and specifications on agricultural engineering practices. Designs are checked for ease of construction, availability of materials and whether or not structures are adapted to the specific site.

b. Recommends changes in designs, specifications, and schedules to accommodate conditions at construction site, availability of materials or to expedite construction. Makes hydrological determinations and solves hydraulic problems including flood routing.

c. Makes periodic quality reviews of notes, drawings, designs, and installations for compliance with policies, procedures, and/or specifications. Keeps the ASTC informed at all times of the engineering operations in the area with recommendations for changes.

d. Reviews and checks engineering planning, design, and construction work of NRCS field staff with lower Engineering Job Approval Authority in the area assigned. The incumbent is responsible for Engineering Job Approval Authority within the assigned work location.

e. Coordinates and conducts necessary quality assurance reviews of planned, designed, and constructed engineering projects in the assigned area/state.

f. Works within a team concept to develop and implement ways to improve the efficiency, effectiveness, and quality of the products and/or services provided to internal and external customers.

3. Training of Engineering Practices (25%)

a. Assists the field supervisors in determining the training needs of the field personnel engaged in engineering work. Makes recommendations to the ASTC and the SCE on training needed and assists in the organization of the statewide engineering training program. Provides intensive engineering on-the-job training to field office staff as indicated by needs.

b. Assists the ASTC and the SCE in evaluating the effectiveness of engineering practices, technical documents, and procedures; and in the development of new technical documents and revisions to existing Technical Guide Standards, specifications, and "How To" materials.

c. Provides technical guidance and training to personnel in the area of all engineering practices and in the use and care of engineering equipment. Enlists the aid of appropriate specialists in conducting training when necessary. Serves as training location leader for newly hired NRCS engineers and technicians.

d. Provides training to conservation contractors and others assisting with the planning and application of conservation practices. Provides training and consultation with consulting engineers, regulating boards, and others responsible for developing and implementing storm water and erosion control regulations in urban areas.

4. Civil Rights

Performs duties in a manner which actively supports civil rights policies regarding personnel rules and regulations and delivery of NRCS programs and services without regard to race, color, national origin, religion, sex, age, marital status, or mental or physical handicap.

Performs other duties as assigned.

CONDITION OF EMPLOYMENT - Operates a motor vehicle incident to the above duties. Must possess and maintain a valid state motor vehicle operator's license for the type of vehicle(s) operated. This will require the operation of a motor vehicle on both public and private roads during daylight hours and occasionally after dark.

EVALUATION FACTORS

1. KNOWLEDGE REQUIRED BY THE POSITION - LEVEL 1-7 (1250 POINTS)

a. Requires a working knowledge of agricultural engineering functions, structural design, soil mechanics, water management, agricultural waste, stream restoration, and engineering geology.

b. Ability to review designs, contracts, and make sure that quality control is built into all NRCS programs.

c. Knowledge of related technical fields such as plant sciences, animal sciences, and soil science is needed for developing new approaches to conservation practices and implementing conservation practices and water resources structures.

d. Knowledge and ability to plan, design, and install projects from simple on-farm projects to complex watershed projects. Requires a good working knowledge of NRCS policies, and federal and state laws governing NRCS projects.

2. SUPERVISORY CONTROLS – LEVEL 2-4 (450 POINTS)

The incumbent is under the general supervision of the ASTC/SCE with technical guidance provided by the SCE. The incumbent develops priorities, timetables, schedules and strategies of work to be done. Work is coordinated with other agency personnel. The incumbent plans and assigns work for the assigned engineering staff. The incumbent develops performance appraisal worksheets, evaluates performance, and exercises general supervision over such employees. Completed work is reviewed by the supervisor or other Service personnel from an overall standpoint in terms of feasibility, compatibility with other work, or effectiveness in meeting requirements or expected results. The incumbent functions as immediate supervisor to other engineers and engineering technicians.

3. GUIDELINES – LEVEL 3-4 (450 POINTS)

General guidance is available from engineering handbooks and manuals, and from Service policy. While these guidelines are generally applicable, the incumbent must select, adapt, and apply the appropriate criteria, methods, and procedures to the site conditions. The incumbent is required to exercise judgment and show initiative to ensure that surveys, investigations, designs, and construction are technically sound, economically feasible, within policy and limited program resources, and appropriate for the site conditions.

4. COMPLEXITY – LEVEL 4-4 (225 POINTS)

a. The responsibility for all engineering practices in the geographical location/state and all construction work under authority of NRCS programs. The incumbent has wide latitude for action and decision and is assigned complete overall technical responsibility for the more difficult type of conservation practices. Public health and safety regulations require permits for storm water runoff, construction of larger dams, well construction and plugging, and construction of animal waste management systems.

b. Topography is extremely varied with extensive areas of cropland and pastureland and some urban-built-up land making up the land use. The incumbent is expected to provide expertise to contractors in construction operations such as earthwork excavation and fill placement, dewatering, erecting structures, and installing motors. Relations must be maintained with local sponsors, local landowners, Corps of Engineers, contractors, state and county highway departments, and cooperating state agencies. New ideas and procedures in construction must be considered. Actions constitute initial, and in many cases, final decisions and actions regarding construction procedures.

5. SCOPE AND EFFECT – LEVEL 5-4 (225 POINTS)

a. Engineering projects prepared in the state are developed for individual landowners, groups, units of government, and other agencies. Significant amounts of federal, local and/or private money is invested in each construction project and demands a high quality product. Proper management, training, design review, and quality control are required for each project.

b. The incumbent provides interpretation of agency policies and procedures which are essential in the formulation of sound conservation facilities. The work accomplished contributes to the diverse geographical -wide reduction of soil erosion, improved water management, improved animal waste management, better use of plants, and improved air quality.

c. The incumbent must be able to deal with a variety of conditions that exist throughout the state such as contrasting extremes of topography, climate, geology, and soils.

6. & 7 PERSONAL AND PURPOSE OF CONTACTS – LEVEL 2C (145 POINTS)

a. Personal Contacts – Contacts are both within and outside the agency. Contacts within the agency are often at different organizational levels. Contacts outside the agency are usually unstructured and involve contractors, landowners, state and local government representatives, Corps of Engineers, and, occasionally, the media.

b. Purpose of Contacts – Contacts are made to persuade, influence, and inform unconvinced, and sometimes persons with different views and opinions, to agree on solutions to problems and the proper course of action. The incumbent overcomes initial reluctance by emphasizing technical reasons and gains to be accomplished through use of specific actions. Tact and diplomacy are used to achieve a consensus on the appropriate course of action. Contacts may be to resolve complaints from customers or in response to Congressional inquiries.

8. PHYSICAL DEMANDS – LEVEL 8- 2- (20 POINTS)

The work requires some physical exertion such as long periods of standing, traversing steep slopes and rough construction sites, recurring bending and stooping, jumping across shallow ditches, walking in soft, muddy and slippery conditions, and lifting and carrying equipment and samples that weigh up to 50 pounds.

9. WORK ENVIRONMENT – LEVEL 9-2 (20 POINTS)

Work is typically performed in an office setting. Frequent trips to field sites involve exposure to construction equipment and the environment, and extreme temperatures of hot/cold. Exposure to noise levels common to construction sites with large earthmoving equipment can be expected. There will be exposure to disease carrying insects and irritating plants.

This position is determined to be exempt from the provisions of FLSA, CFR 551.207.

Total Points = 2,785
Range GS-12 = 2,755-3,150

EVALUATION STATEMENT
AGRICULTURAL ENGINEER
Non-Supervisory
GS-890-12
USDA – NRCS

INTRODUCTION

This position is located in a diverse geographical with complex engineering practices in a field or state office with USDA - Natural Resources Conservation Service. The incumbent serves at the state level and is responsible for providing technical guidance and leadership in the overall planning, design, installation, and maintenance of the agricultural engineering phases of soil and water conservation practices as well as watershed flood protection programs.

SERIES AND TITLE DETERMINATION

Responsible for performing and/or directing the full range of field engineering functions associated with assigned technical engineering projects. Prepares field designs and sketches with written descriptions of work for construction contract modifications. Communicates with contractors and field offices regarding all aspects of technical engineering relating to overall planning, design, installation, and maintenance of the engineering phases of soil and water conservation practices as well as watershed flood protection programs. The scope of work and responsibilities assigned clearly match the requirements for a professional engineer. Functions are performed by individuals within the Agricultural GS-890 series.

Title, Series, and Grade: Agricultural Engineer, GS-890, 12

POSITION EVALUATION SUMMARY				
Evaluation Factors		**Factor Level Used (FL#, etc.)**	**Points Assigned**	**Comments**
1. Knowledge Required by the Position		1-7	1250	
2. Supervisory Controls		2-4	450	
3. Guidelines		3-4	450	
4. Complexity		4-4	225	
5. Scope and Effect		5-4	225	
6. & 7. Personal Contacts & Purpose of Contacts		2C	145	
8. Physical Demands		8-2	20	
9. Work Environment		9-2	20	
	Total Points		2785	**Classified by:** Darlene Locke, Human Resources Specialist, HRMD
SUMMARY	**Grade Conversion**	2755-3150	GS-12	**Date:** October 23, 2009

Additional Remarks:

GRADE LEVEL DETERMINATION: The GS-0800 Engineering Professional standard refers the classifier to the, OPM JFS PROFESSIONAL WORK ENGINEERING & ARCHITECTURE GROUP, NOV 2008 for guidance related to grade level determination. This guide uses a factor evaluation process to determine the appropriate grade for positions using this Job Family Standard; therefore, a factor-by-factor analysis is used to determine the proper grade for this position.

FLSA DETERMINATION: This position does not meet the Professional Exemption Criteria as defined in 5 CFR 551.207 and is considered Exempt by FLSA Standards.