



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064**

May 17, 2000

MEMORANDUM TO: Ellis W. Merschoff, Regional Administrator

FROM: Dwight D. Chamberlain, Director */RA/*
Division of Nuclear Materials Safety

SUBJECT: SEMIANNUAL WORK-AT-HOME PROGRAM EVALUATION

Enclosed is the third semiannual report of the evaluation of the Region IV Division of Nuclear Materials Safety Work-At-Home (WAH) arrangements. This evaluation provides an updated, cumulative analysis of the efficiency and effectiveness of the WAH program from October 1, 1998, through March 31, 2000. There have been three materials inspectors and one license reviewer participating in the program.

Overall the evaluation concluded that the WAH program has been successful following eighteen months of operation. We will continue to conduct evaluations of the program every six months for the 24-month duration of the current program.

Please contact me if you have any further questions regarding our evaluation of the WAH program.

Enclosure: As stated

cc:
F. Miraglia, OEDO (O-17H10)
C. Paperiello, OEDO (O-17H6)
W. Kane, NMSS (T-8D43)
P. Byrd, OHR (T-3F2)
M. Fox, OHR (T-3D1)
K. Hamill, RIV
L. Howell, RIV
M. Shaffer, RIV
C. Cain, RIV

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CLCain <i>/RA/</i>	KHamill <i>/RA/</i>	DDChamberlain <i>/RA/</i>
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EVALUATION OF REGION IV DNMS WORK-AT-HOME ARRANGEMENTS AFTER EIGHTEEN MONTHS OF OPERATION

Purpose

This report provides an evaluation of the Region IV Division of Nuclear Materials Safety (DNMS) work-at-home (WAH) program after eighteen months of operation from October 1, 1998, through March 31, 2000.

Background

WAH arrangements began operating upon the closure of the NRC Walnut Creek Field (California) Office on September 30, 1998. Four WAH arrangements were initiated within NRC Region IV's DNMS headquartered in Arlington, Texas. Three agreements were made with materials inspectors reporting to the Nuclear Materials Inspection Branch, and one agreement was made with a materials license reviewer reporting to the Nuclear Materials Licensing Branch (NMLB). The homes of all four WAH assignees are situated in the San Francisco Bay Area of California.

Agreements signed by each WAH participant, and as agreed to by the National Treasury Employees Union, stipulate that each WAH arrangement will be reviewed by management on a case-by-case basis at least every 6 months. A plan was developed by which the WAH arrangements were evaluated. The plan is included as Attachment 1.

The Agreements further stipulate that if any arrangement is found not to be in the best interest of the agency, the position will be abolished and the incumbent will be given the opportunity to either relocate under a transitional reassignment or terminate employment at their option.

The following criteria were identified for evaluation of the WAH program. To assess these criteria, input was requested from all affected parties including supervisors, WAH assignees, any assigned staff member liaisons in the regional office (or other staff affected by the WAH program), and secretaries who serve in a support capacity.

A. Quantity and Quality of Work Accomplished

Assessment Criterion

An assessment was made in regard to whether the level and quality of support to the regulatory program for each assignee was reasonably equivalent to the support by similarly assigned DNMS staff members located in the Arlington office. The assessments included, where possible, a measure of the number of work products completed (i.e., the number of inspections or licensing cases) with consideration of the varying complexity of those assignments. Ultimately, there was a judgment on whether the WAH program effectively supported the Operating Plan goals.

Also included in this assessment was a consideration of the impact on the effectiveness and efficiency of other branch staff members and affected supervisors and managers.

Assessment Results

From the outset it was recognized that the WAH program would only succeed if the participants were of high integrity in regard to work ethic and had advanced technical training and experience. Integrity was crucial because the participants in many cases could not be closely supervised and would need to be adequately self-motivated in regard to their work. Similarly, advanced technical training and experience were important to enable the participants to work with minimal reliance on Arlington office staff. These traits were recognized in the selected participants because they were demonstrated during the years they served as staff members at the former Walnut Creek Field Office and its predecessor Region V Office. The success of the WAH program to date relies heavily on the presence of these traits in the participants.

In regard to quantity of work produced, comparison among staff members, regardless of work location assignment, is difficult for several reasons. Because staff are assigned work with widely-varying complexities, a simple count of inspections or licenses completed by each individual is not informative. That is, in general small, uncomplicated licensed programs require little time to inspect or license as compared with more complex ones and the mix of these assignments among the staff varies considerably over time.

Secondly, results of inspections or license reviews can vary widely, regardless of license complexity. Some have required complicated escalated enforcement activities which required additional inspection work and documentation while other cases have not. Similarly, some license applications have been well prepared and have required little review time while others have not and have required greater review effort and additional written communication with the applicant to bring the case to closure.

Thirdly, some staff members have been assigned ancillary assignments that resulted in less inspection or licensing work produced. Senior staff have been at times heavily involved in regulatory program development projects. Considering the case of the Nuclear Materials Licensing Branch, the WAH license reviewer is one of six license reviewers in the Nuclear Materials Licensing Branch. The staff members in Arlington have been assigned widely varying projects that include, in addition to licensing casework, support to headquarters on guidance consolidation and other projects, the regional reciprocity filing program, administration of the Air Force Master Materials License, and other miscellaneous projects. The WAH license reviewer was also assigned as licensing lead for a major radiopharmacy license that has use locations throughout the United States.

Lastly, for inspection staff some work assignments have been at locations near their home base while others have been quite remote from it and have required extensive travel time. Thus, the time to complete an inspection case has been significantly affected by travel requirements.

The WAH participants have been required to shoulder various administrative responsibilities that were formerly borne by secretaries or DRMA staff when the participants were assigned to an office environment. In some respect, the type of work

assigned to the participants has considered this factor. For example, the WAH license reviewer has been assigned licensing cases that require the most review effort versus administrative effort. That is, cases such as minor license amendments have been processed only at the Arlington office because the review effort for these cases is minor compared to preparation, printing, and mailing.

This negative factor has at least in part been offset by another testified to by the WAH participants. They have indicated that they believe productivity has increased markedly due to the absence of the many distractions and interruptions that often exist in an office environment. The WAH license reviewer stated that he believed the quality of his work had improved due to his ability to concentrate fully on his work without interruption.

An additional benefit has been realized by having the four WAH staff located in California and thus having the capability to respond immediately to any need in the coastal West, Hawaii, and Alaska. Several examples of this benefit were experienced during the review interval.

Regardless of these factors, line management perceived that the WAH participants were contributing a volume of work comparable with their peers in the Arlington office. Further, the quality of the work produced was deemed to be comparable among all work participants. In summary, the participants in the WAH program were deemed to be supporting operating plan goals according to expectations.

An assessment was also made to consider the impact on the effectiveness and efficiency of Arlington office staff members, including affected secretaries, supervisors, and managers. At the beginning of the program there were some "startup" costs that diminished soon; however, some of the costs of liaison have continued. There has continued to be impacts in regard to communication complexities, particularly the necessary use of surface mail and general requests for support. At the outset, routine office processes had to be revised to accommodate the remote personnel. Items which have been routinely processed and routed as hard copies (travel requests, inspection planners, RITS, etc.) continue to be transmitted electronically from the remote personnel and converted to hard copies. These processes are working routinely now, although at times, they have required extra effort to maintain.

The WAH inspectors, because of their experience, have served a valuable role in accompanying newly hired inspectors and otherwise assisting them during their on-the-job training.

B. Effectiveness and Efficiency of WAH Administrative Provisions

1. Effectiveness of Information Technology (IT) Equipment

Assessment Criterion

WAH assignees have been provided IT equipment including computers, telephones, and data lines that enable e-mail and fax communications with the regional office, other NRC components, and licensees. Assignees also gain

access to agency information through the NRC's web site on the Internet and through direct tie with the office's LAN. This equipment is also used to prepare written correspondence and other agency work products. Video conferencing is also a capability provided by this equipment.

An evaluation was performed in regard to whether the equipment selected effectively and efficiently fulfills the requirements of the WAH assignments.

Assessment Results

The WAH program depends upon IT equipment for its success because it provides the critical communication links necessary for such a program. When equipment problems occur, the impact on the program is significant, and remoteness from the Arlington office results in greater than usual difficulties in correcting the problem.

In general, IT equipment has performed adequately, but some problems still persist. The most notable examples included failure of the ISDN connection with the Arlington server and the laboriousness of single-sheet scanning and faxing.

Attempts were made early in the WAH program to use video conferencing between the regional office and one (or more) of the work-at-home users. However, the quality and usefulness of this feature has not warranted the additional effort necessary to continue development of it.

The advent of ADAMS in early 2000 has brought special problems to the WAH program. The participants have not been able to access the system from their homes; therefore, they have not been able to view agency documents available on the system nor have they been able to enter their work products into the system. The latter has been accomplished on their behalf by Arlington office staff.

Pilot testing of the new STARFIRE system to replace the current time and attendance system and the RITS system was underway near the end of the reporting period. The impact of this system on the WAH program is not yet known but again is expected to require main office support for the WAH participants.

One WAH participant reported that he had gained access to the Nuclear Materials Events Database (NMED) and had been successful at using it from his location.

2. Other Administrative Issues

Assessment Criterion

Ancillary administrative capabilities to support WAH assignments were also evaluated. These included a review of regular and express mail capability with the regional office and licensees, arrangement for travel and other services from

the WAH assignees location, and payroll and RITS administration. The review also included an analysis of whether office supplies and other materials have been adequately provided to the assignees.

Assessment Results

Administrative support (secretarial support, leave and pay administration, travel arrangements) to the WAH staff has been complex because of the remoteness of the WAH staff and the inability to experience face-to-face communications. Also, the differences that existed between the former Region V Office (and its successor Walnut Creek Field Office) and the Region IV Office in terms of administrative procedures were notably evidenced early in the review interval. Essentially all of these differences have been resolved. The assignees reported at the end of the review interval that they had experienced no serious problems with these matters. Also, administrative staff who interfaced with the WAH staff reported similarly and stated that early problems with the program had been quickly and effectively resolved.

The WAH assignees have been required to adjust to performing administrative functions that previously were performed for them by other administrative staff. For example, they have adapted to the task of often preparing and mailing their own correspondence either to the Arlington office or to licensees. They reported that these impacts have been negligible in diverting them from their technical assignments.

C. Effectiveness and Efficiency of Communications

Assessment Criterion

Beyond the administrative provisions for communication as described above, an assessment was made of the impact on communication due to the remoteness and isolation of the WAH assignees from the regional office. The review identified what needed information has been inaccessible to the WAH assignees, and the timeliness and completeness of communication. This included an assessment of verbal, e-mail, and written communication needs.

Also assessed was whether the frequency of WAH assignee visits to the regional office supported the needs of the individuals and the agency, and an analysis of the extent to which WAH assignee participation on conference calls, such as the weekly inspectors' debrief session, has been effective and efficient.

Assessment Results

The WAH assignees stated that they have adjusted to the remoteness and isolation from their work peers. Also, Arlington office staff and management have ensured that the WAH staff are kept informed of matters that might not otherwise be communicated through e-mail announcements or the internal web site. No serious problems regarding communications timeliness or completeness were identified. Again, much of the

success in this area can be attributed to the experience and self-sufficiency of the program participants.

WAH participants visited the regional office usually at least quarterly. All participants in the program have reported that the frequency of visits to the office have been adequate and appropriate. The WAH staff participated by telephone in various meetings and debriefs, and this mode of interface was successful.

During the first quarter of FY 2000, the inspection branch initiated quarterly branch counterpart meetings in the Arlington office attended by all inspectors including the WAH inspector participants. Both staff and management believe these meetings have been beneficial.

D. Progress in Identifying Replacements for WAH Assignees

Assessment Criterion

Since the WAH assignees are expected to be in their positions no later than September 2000, progress in hiring and training their replacements was evaluated. An assessment of the WAH assignments also included whether there is any basis for considering any adjustment in the duration of the WAH assignments to either extend or shorten any assignment.

Assessment Results

At the end of the review period, a decision was made to extend two of the WAH assignments an additional two years (through September 2002). The license reviewer participant was one of the two extended. Of the three inspector participants, one resigned from the agency (effective May 2000). Management interviewed the two remaining inspector participants and selected one for extension. The remaining position will end effective October 1, 2000.

Several additional staff have been hired to materials radiation specialist (inspector) positions in the Arlington office. These staff members are completing their training in order to replace the one WAH staff departure which will end in FY 2000 and the second position ending October 1, 2000.

ATTACHMENT 1

PLAN FOR EVALUATION OF DNMS WORK-AT-HOME ARRANGEMENTS

Purpose

Agreements signed by each work-at-home (WAH) participant, and as agreed to by the National Treasury Employees Union, stipulates that each WAH arrangement will be reviewed by management on a case-by-case basis at least every 6 months. This document describes the plan by which the WAH arrangements will be evaluated. The Agreements further stipulate that if any arrangement is found to be not in the best interest of the agency, the position will be abolished and the incumbent will be given the opportunity to either relocate under a transitional reassignment or terminate employment at their option.

WAH arrangements began operating upon the closure of the NRC Walnut Creek Field (California) Office on September 30, 1998. Four WAH arrangements were initiated within NRC Region IV's Division of Nuclear Materials Safety (DNMS) located in Arlington, Texas. Three agreements were made with materials inspectors reporting to the Nuclear Materials Inspection Branch, and one agreement was made with a materials license reviewer reporting to the Nuclear Materials Licensing Branch (NMLB). The homes of all four WAH assignees are located in the San Francisco Bay Area of California.

The following criteria are identified for evaluation of the WAH program. To assess these criteria, input should be requested from all affected parties including supervisors, WAH assignees, any assigned staff member liaisons in the regional office (or other staff affected by the WAH program), and secretaries who serve in a support capacity.

A. Quantity and Quality of Work Accomplished

An assessment should be made in regard to whether the level and quality of support to the regulatory program for each assignee is reasonably equivalent to the support by similarly assigned DNMS staff members located in the Arlington office. The assessments should include a measure of the number of work products completed (i.e., the number of inspections or licensing cases) with consideration of the varying complexity of those assignments. Ultimately, there must be a judgment on whether the WAH program effectively supports the Operating Plan goals.

Also to be included in this assessment should be the impact on the effectiveness and efficiency of other branch staff members and affected supervisors and managers.

B. Effectiveness and Efficiency of WAH Administrative Provisions

1. Effectiveness of Information Technology (IT) Equipment

WAH assignees have been provided IT equipment including computers, telephones, and data lines that enable e-mail and fax communications with the

regional office, other NRC components, and licensees. Assignees also gain access to agency information through the NRC's web site on the Internet and through direct tie with the offices's LAN. This equipment is also used to prepare written correspondence and other agency work products. Video conferencing is also a capability provided by this equipment.

An evaluation should be performed in regard to whether the equipment selected effectively and efficiently fulfills the requirements of the WAH assignments. Problems with this equipment or its use should be identified to facilitate correction.

2. Other Administrative Issues

Ancillary administrative capabilities to support WAH assignments should also be evaluated. These should include, but not be limited to, a review of regular and express mail capability with the regional office and licensees, of the complexities of arranging for travel and other services from the WAH assignees location, and of payroll and RITS administration. The review should also include an analysis of whether office supplies and other materials have been adequately provided to the assignees.

C. Effectiveness and Efficiency of Communications

Beyond the administrative provisions for communication as described above, there should be an assessment of the impact on communication due to the remoteness and isolation of the WAH assignees from the regional office. The review should, among other things, identify what needed information has been inaccessible to the WAH assignees, and the timeliness and completeness of communication. This should include an assessment of verbal, e-mail, and written communication needs.

Also to be assessed is whether the frequency of WAH assignee visits to the regional office supports the needs of the individuals and the agency, and an analysis of the extent to which WAH assignee participation on conference calls, such as the weekly inspectors' debrief session, has been effective and efficient.

D. Progress in Identifying Replacements for WAH Assignees

Since the WAH assignees are expected to be in their positions no later than September 2000, progress in hiring and training their replacements should be evaluated. An assessment of the WAH assignments should also include whether there is any basis for considering any adjustment in the duration of the WAH assignments to either extend or shorten any assignment.