

**Recommendations
on organizational structure,
workflows, and job descriptions
for
The All Ukraine Clearing Depository
(AUCD)**

**Prepared by:
PricewaterhouseCoopers**

November 1999



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November 19, 1999

Nikolai Shvetsov
Chairman, Management Board
Interregional Securities Union JSC
Kyiv

Dear Mr Shvetsov

In March, 1999, a draft of "Organizational Structure, Workflows, and Job Descriptions for the All Ukraine Clearing Depository (AUCD)" was provided to you for review and discussion purposes. This paper was written by myself and is based on the "All Ukraine Clearing Depository Functional Specifications - Overview and Operations" that has been delivered to you previously. It represents the second document in a series of management tools being provided by the PricewaterhouseCoopers consultants. This bound version represents the formal deliverable.

This organizational structure document provides a blueprint for the establishment of the AUCD organization at the time of implementation as well as after growth of activity over one year. These recommendations as well as the workflows and job descriptions provided in this deliverable give the management of the AUCD a reference tool for now and in the future.

Training sessions for MFS management have been conducted based on this paper. Also, the initial organizational structure that is outlined was used when you and I developed the preliminary organizational structure chart for the AUCD.

Finally, the workflows and job descriptions were the basis for the operational procedures that have been developed. These procedures will be delivered in the near future as another tool.

We will continue to reference this organizational structure document over the next few months. If you would like to discuss any part of it in detail, please give me a call.

Sincerely,

Susan J Hertel
Project Director

Cc V Kravets, Chairman, MFS Supervisory Board
A Goluvko, Commissioner, SSMSC
H Haworth, USAID
B Cornelio, USAID-Washington
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**RECOMMENDATIONS
ON ORGANIZATIONAL STRUCTURE,
WORKFLOWS, AND JOB DESCRIPTIONS
FOR
THE ALL UKRAINE CLEARING DEPOSITORY
(AUCD)**

*PricewaterhouseCoopers LLP
Ukraine Capital Markets Project*

November, 1999

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RECOMMENDATIONS ON ORGANIZATIONAL STRUCTURE, WORKFLOWS, AND JOB DESCRIPTIONS FOR THE ALL UKRAINE CLEARING DEPOSITORY (AUCD)

I EXECUTIVE SUMMARY

PricewaterhouseCoopers (PwC), under contract with the United States Agency for International Development (USAID), is currently working with the Ukrainian capital markets, providing assistance to develop the securities industry in Ukraine. A major part of this project is the creation of a market-driven clearing depository. As a basis for this work, the "All Ukraine Clearing depository (AUCD) Functional Specifications" (Functional Specifications) were produced by PwC in March, 1999 in draft form. That paper provides an overview of the business operations and system processing requirements of the proposed AUCD. The requirements are based on the overall business objectives of the AUCD as stated in the Functional Specifications, which are

- To simplify the process of transferring ownership of securities
- To increase public confidence in the securities market
- To raise the Ukrainian securities market to the standard of international capital markets

The following report builds on the Functional Specifications and addresses the proposed organizational structure for the AUCD that will be needed to support the above objectives and the necessary functions outlined. A comprehensive organizational structure for a clearing depository is first discussed. However, it is recognized that at the time of implementation, such a structure will be too extensive for the AUCD. Therefore, a compressed version is also offered, including organizing by related functions and an adjusted management structure. This is discussed further below.

Note: The reader of material that follows, therefore, needs to keep in mind that there are these two variations on organizational structure presented.

The departments and sub-areas of the departments that are being recommended for the AUCD under the full organizational plan are

- Operations Department, including, Cash Settlement, and Corporate Actions
- Information Technology, including Communications, Computer System Programming, and Computer Operations
- Marketing Department, including Sales, Training, Membership and Participant Services

- Risk Control, including Compliance, Surveillance, Risk Management and Legal
- Internal Audit
- Support Services, including Human Resources, Accounting, Administrative Services, Distribution/Mail and Corporate Security

Recommendations on the above departments have been based on certain assumptions included within the body of this report and the experience of the PwC clearing depository operations specialist. In broad terms, the assumptions represent

- Services to be provided
- Volumes anticipated
- Participation (custodians and issuers)

General workflows have been developed for all of the recommended departments with the exception of Support Services. The areas related to Support Services are common to most businesses. Therefore, the AUCD management should be familiar with the related processes and not need for PwC to advise the clearing depository on those functions.

Note: The PwC team will assist in these areas as needed and as time permits.

The focus for this paper is those specific departments needed to support clearing depository processing. The workflow narratives for the clearing depository-specific areas are included in the respective sections. Again, these workflows may seem extensive for the AUCD at this time. However, *the AUCD staff will need to perform, or at least be prepared to perform, all of the tasks discussed, no matter what the volume is.*

The workflows also establish a framework for documenting formal procedures for the AUCD. These procedures will be developed, written and published under separate cover by PwC prior to the implementation of the clearing depository. They will be used to train the AUCD staff and the resulting manual also will serve as an ongoing reference tool for continuing day-to-day operations.

Within the narratives, key staff positions have been identified. A total of 19 job descriptions have been created for these key positions. This number may seem high, but there needs to be at least one description for each operational area. Excluded from the job descriptions are such positions as secretary, receptionist, and file clerks. Similar to Support Services, these more junior positions will be familiar to the AUCD management. Job descriptions for management

positions are also not included in this work as the AUCD Supervisory Board will establish the criteria for the management staff

Note Under a compressed version of the organizational structure, a combination of two or more job descriptions may be used in staffing individuals that will be responsible for a number of functions

Job descriptions for those positions noted in the workflows may be found in Appendix A
Overview flowcharts for the primary functions described in workflow narratives may be found in Appendix B

Management structure for the AUCD has been addressed. A pyramid structure is recommended, with the number of management positions increasing from the top down. The clerical staff is then of such a number as to provide a broad base under the management levels, supporting the functions that need to be performed and related activity volumes. Decision-making powers and amount of responsibility increase upward through the levels of the management pyramid. This structure supports the mandatory division of duties within a clearing depository. Policy decisions are reserved for the most senior management levels and the Supervisory Board.

As noted above, the proposed organizational structure (including both departmental and management) is very detailed, and considers a fairly well developed clearing depository based on international standards. ***It is recognized that the AUCD will not necessarily need such an extensive structure at the time of implementation.*** For this reason, the section “Compressed Organizational Structure” provides a more realistic initial approach in establishing areas of responsibility for the AUCD. This section offers ideas on the priority of setting up departments as well as how functions within departments may be combined to avoid the more complicated sub-area development until volumes warrant such a structure. The section on “Adjusted Management” considers this organizational structure adaptation.

The complete organizational structure, however, must not be ignored. It provides a vision and potential plan for the AUCD management to use as a reference as the AUCD activity grows and the organization develops. In other words, this document is one of the ongoing tools that will be provided to the AUCD by the PwC team. (PwC is committed to providing such tools for use long after the project is completed.)

To compliment this vision, a section on “Future Considerations” is also provided. This section expands on the needs to sustain operation of the clearing depository over an extended period of time.

Recommendations on Organizational Structure, Workflows, and Job Descriptions for the All Ukraine Clearing Depository (AUCD)

Using all of the recommendations provided within this report will assist the AUCD management in the initial structuring and staffing of the AUCD. As previously stated, the report also provides an ongoing reference tool for the AUCD management as change is warranted. PwC is prepared to assist the AUCD management in all of the areas related to organizational structuring throughout the duration of the current Ukrainian capital markets project.

II BACKGROUND

A SCOPE OF WORK

PricewaterhouseCoopers (PwC), as contractor to the United States Agency for International Development (USAID), is currently working with the Ukrainian Securities Market participants to develop several aspects of the Ukrainian capital markets. As part of this project, PwC is assisting in the creation of a private sector securities clearing depository, the All Ukraine Clearing Depository (AUCD). It is expected that the AUCD will become the focal point for all trade clearance and settlement for the various Ukrainian equities markets.

In March, 1999, PwC published the "All Ukraine Clearing depository Functional Specifications" (Functional Specifications) in draft form. That report provided an overview of the business operations required of a securities clearing depository and the related computer system functions. This paper builds on the Functional Specifications by providing detailed information on the following areas related to the organizational structure of the AUCD:

- Departmental structure
- Management structure
- Workflows and departmental responsibilities
- Job descriptions
- Initial staffing requirements

The recommendations in these areas are based on certain assumptions as described below. These assumptions are based on the Functional Specifications, discussions with market participants, and the experience of the PwC specialists.

The information provided in this paper recommends the development of various "departments" within the AUCD organization. These departments are those typically found in a clearing depository built to meet international standards. Each department is assigned certain responsibilities that must be fulfilled in operating a clearing depository.

It is recognized that this formal departmental structure may not be appropriate for the AUCD. Initially, activity within the AUCD will be low. Staff can absorb multiple responsibilities. Minimal staff will be needed to perform the basic and essential processing functions. A small

number of staff will not warrant the full departmental or management structure that is discussed in this paper. However, growth of the AUCD will occur as the result of

- Education of the local securities industry on the benefits of using the AUCD
- Increased trade volumes resulting in more trades settling at the AUCD
- Regulatory requirements for settlement through the AUCD

As growth is realized, more staff and a more formal organizational structure will be justified. Until that time, it will be appropriate to group similar and related functions when making assignments to the staff. This approach will be discussed further in the sections on “Compressed Organizational Structure” and “Adjusted Management Structure”.

The *full organizational structure* will first be discussed in the following sections by “departments”. This will help to *compartmentalize workflows* and provide the AUCD management with a basis for adapting the AUCD’s organizational structure as the business evolves. In other words, this paper is intended to not only assist the AUCD management in implementing an appropriate organizational structure, but will also serve as a reference tool for future ongoing re-structuring (even after the current project with PwC is completed). The information is given to provide a *vision of development of the clearing depository to complement the market growth*. Therefore, this vision needs to be considered by the reader.

The PwC team of consultants will be available to assist in implementing and expanding the organizational structure as appropriate for the AUCD throughout the current capital markets project.

B ASSUMPTIONS

In developing the recommendations for the AUCD organizational structure, certain business operations assumptions were made (as is done in the creation of any organization). These assumptions were defined based on information provided by the Functional Specifications and discussions with market participants. In developing these assumptions, projections were made only for the first year of operation. The AUCD management will need to develop new projections after that time (as well as monitoring during the first year). The assumptions are as follows:

- ***Implementation date*** - It is anticipated that a pilot clearing depository system will be implemented in December, 1999, with the first trade settlement through the AUCD by January, 2000.

- ***Custodian Participants*** - The customers of the AUCD will be organizations that have been licensed as custodians, both those that provide custody-only services and broker/dealers providing custody services. Currently, there are 64 such custodians in Ukraine. It is expected that 5 custodians will become members under the pilot program of the AUCD, with all custodians becoming participants of the AUCD within the first year of operation.
- ***Issuer Participants*** - Accounts with the AUCD will be maintained by Issuers to accommodate such activities as IPO's, stock distributions, security form changes, and proprietary shares. Currently, there are approximately 12,500 issuers in Ukraine. It is expected that 5 issuers will establish accounts with the AUCD under the pilot operation, with this number growing to 200 within the first year of operation. This number relates to the "blue chip" securities recently selected by the SSCSM for mandatory trading through an organized market.
- ***Eligible Securities*** - Each issuer represents an open joint stock company that is potentially eligible for processing in the AUCD. Therefore, currently, there are 12,500 open joint stock companies. At the time of implementation of the AUCD, a small, manageable number of issues will be selected for eligibility in the clearing depository. This number will be increased to 100 issues by the end of the current project in March, 2000. However, this will be increased to the same 200 "blue chip" securities noted above by the end of the first year of operation.
- ***Exchanges/Trading Information Systems (TIS)*** - Currently, there are four licensed securities exchanges in Ukraine and at least three TIS organizations. The AUCD will be built to service all of these environments. However, it is expected that the PFTS (a TIS) will represent most if not all of the trade settlement activity at the AUCD for the first year of operation. Even if other exchanges interface with the AUCD, the PFTS represents the majority of the trading volume that is expected during the first year.
- ***Services to be provided*** - Based on the Functional Specifications, the clearing depository will provide the following services to its participants:

Note *The AUCD will service two types of customers: Custodians and Issuers. The broad term used within this paper for these two types is "participant". Custodians and issuers are "participants" of the clearing depository. By using this term, it is assumed that issuers may have some similar activities within their accounts as custodians, but will not be allowed to settle trades.*

- Facilitation of trade confirmations
- Deposits of securities to accounts through presentation of certificates of immobilization and global certificates representing dematerialized (non-

certificated) securities. On average, there are approximately 10 trades executed per day at the PFTS. With the SSCSM regulation on the 200 “blue chip” securities, it is assumed that there will be at least one trade per day in each of these securities by the end of the first of operation. The deposit volume should equate to one deposit per trade for staffing purposes. Additional deposits could be realized through securities to be held in safekeeping. This is not expected to be a significant number during the first year.

The regulation on depositories requires that the AUCD accommodate bearer securities. However, this security form may not be eligible for clearing depository services upon implementation. Rather, bearer securities may be added in another phase of development. To date, no securities have been issued in bearer form. The Functional Specifications recommend that bearer certificates be dematerialized, similar to registered certificates when/if securities are issued in bearer form. At any rate, deposits of bearer securities will not have a significant impact on processing volumes at the AUCD during the first year of operation.

- Book-entry deliveries against trades
- Safekeeping of securities. While all securities held in the AUCD should be dematerialized, there is the chance that interim processing may require physical certificates to be held overnight by the clearing depository. This is not expected to create significant activity within the first year, but the possibility needs to be considered for staffing and security reasons.
- Withdrawals of securities. This involves the rematerialization of immobilized securities. The volume is expected to be negligible during the first year.
- Corporate actions, which will include the ability to service cash dividends, stock dividends, stock splits, reverse stock splits, and supporting other actions through creation of Beneficial Owner Lists at the time of implementation.
- Inter/intra account transfers of securities
- Daily cash settlement
- Record keeping and storage of documents supporting all activity at the clearing depository
- Reporting of clearing depository account activity to respective participants
- Providing system specifications to participants, allowing them to interface in-

house systems with the AUCD system

- Training of participants in use of the AUCD system
- Marketing/sale of AUCD services
- Risk reduction within the securities market

Services provided by a clearing depository determine the types of “departments” to be established within a clearing depository

- *Participant input will normally be performed by participants* of the AUCD through automated transfers. The AUCD will need to be prepared to input certain types of entries and/or perform input on an exception basis on behalf of participants
- *Automated trading system interfaces* between stock exchanges and other organized markets will provide the AUCD with trade settlement information
- The system will be available 24 hours a day
- *Number of registrars* – It is currently estimated that there are more than 600 licensed registrars in Ukraine, of which over 500 are active. The AUCD could eventually need to interact with all of these registrars. However, the maximum number of issues expected to be eligible by the end of the first year is “200”. This would mean that the *maximum number of registrars* would also be “200” during the first year
- Generally, the AUCD will *interact only with participants, issuers, and registrars*. The AUCD will not interface with the individual investor except in extremely unusual circumstances
- *Information Technology (IT)* - The AUCD will be responsible for the daily operation of the clearing depository system. IT staff will make minor software changes. Major software changes will be outsourced (at least initially)
- *Support processes* such as payroll, accounting/finance, bank account reconciliations, space, supplies, equipment, and physical security will need to be performed. However, as these are routine for all businesses, it is expected that the AUCD management will be familiar with such departmental structures. Therefore, these areas are not addressed within this paper

Note However, PwC will provide assistance in these areas where possible

III RECOMMENDED DEPARTMENTAL STRUCTURE

Typically, in developing the organizational structure of a clearing depository, various “departments” are created to support the overall services offered and operations *It is recognized that this approach will be too extensive for the initial stages of the All Ukraine Clearing depository* However, the following discussion of an organizational structure for the AUCD is in the more traditional format to compartmentalize functions that will be performed This approach also provides the Working Group and, ultimately, the future management of the AUCD with a *vision and logical plan* on which to build once the AUCD is implemented and begins to experience growth Further, the AUCD staff will need to perform, or *be prepared to perform* all of the functions discussed, *no matter what the volume is*

In developing the organizational structure of a securities clearing depository, consideration must be given to

- Services to be provided to participants
- Estimated activity volumes
- Division of duties

Note “Division of duties” provides for the necessary check points and safeguards against collusion between employees and participants of the clearing depository Such division of duties is typically a routine requirement of auditing groups and regulators Therefore, departmental and staff responsibilities must address this issue and comply with international auditing and regulatory requirements In addition, it is just good business sense to develop these check points and safeguards

- Processing deadlines
- Performance and audit requirements to meet international standards
- Administrative/support functions

Based on the above considerations, the following main departments and sub-areas are recommended for the AUCD

- *Operations Department* - The Operations Department would be concerned with the day-to-day service functions of the clearing depository Areas of responsibility would center on ensuring that processing flows operate smoothly and assisting with resolving problems as

they arise

- **Information Technology** - This department would be responsible for the daily operation of the system hardware and running of the system jobs in accordance with systems performance standards (response times, service quality, reliability) To accomplish this objective would mean that the area would be responsible for maintaining the operating environment, including both hardware and software infrastructures
- **Marketing Department** - Initial contact with prospective participants and maintenance of relationships with existing participants is accomplished through the Marketing Department
- **Risk Control** - This department would be responsible for the critical areas of compliance, surveillance, corporate risk management and legal issues
- **Internal Audit** - Internal Audit would be the department responsible for ensuring internal compliance with clearing depository procedures and policies, and industry regulations and standards for operation
- **Support Services** - Support Services include such administrative needs as payroll and other human resources functions, accounting/finance, space, supplies and equipment, and security for the physical environment

More detailed narratives on workflows for each department and job descriptions for the recommended key staff positions are provided in the following sections

IV NARRATIVES ON DEPARTMENTAL WORKFLOWS

The departmental workflows identify the primary responsibilities of each area of the clearing depository. Key staff positions have been indicated within their respective workflows. The addition of more junior support staff may be appropriate as the activity of the AUCD increases and justifies such additions. Additional information on the responsibilities of staff members may be found in the section "Job Descriptions."

The following narratives provide the basis for the documentation of detailed internal operating procedures for the AUCD. These procedures will be completed in a future phase of the current project. Overview flowcharts for the primary functions may be found in Appendix B.

A OPERATIONS DEPARTMENT

The Operations Department is responsible for the day-to-day service functions of the AUCD. These responsibilities may be sub-divided into the following areas:

- Security Masterfile
- Securities Processing
- Cash Settlement
- Corporate Actions

Typical workflows and responsibilities for each of these proposed areas follow:

1 Security Masterfile

a Purpose

The Security Masterfile area is responsible for maintaining the system database of securities eligible in the clearing depository. This includes the administrative functions related to ensuring that issues meet the clearing depository's eligibility standards, adding the security profiles to the system database via terminal input, and updating such profiles based on corporate actions and other pertinent information. In fact, population of this database with the initially eligible securities will be one of the first tasks performed by the AUCD operations staff.

b Administrative Functions

The Security Masterfile area receives requests to add specific issues to the AUCD security masterfile database. These requests may come directly from participants, exchanges/other markets, or internal areas that support the system users. Such requests should include as much information as possible about the issue.

The Security Masterfile Clerk contacts the issuer and/or its agent to confirm the status of the security, further ensuring that the security meets the standards (eligibility criteria) of the clearing depository. At the same time, the Security Masterfile Clerk checks to see that all necessary agreements between the clearing depository, issuer, and/or the issuer's agent are in place. If there are no agreements, the Security Masterfile Clerk arranges to have the standard agreement signed by all parties.

All research and agreements are maintained in the Security Masterfile area's files for future reference.

c Data Input Functions

Once securities have been determined to be eligible for clearing depository services, the information must be entered to the system database on securities. This is accomplished through terminal access to the AUCD's security masterfile via an input screen.

Input is edited on-line. Therefore, the Security Masterfile Clerk corrects any inaccurate information as securities are added. The Security Masterfile Clerk confirms that the security profile was accepted by the system database to ensure that there were no system problems related to the addition.

d Updates to the Security Masterfile Database

The Security Masterfile Clerk also receives notifications of changes in status of securities. These changes may be due to corporate actions (reorganizations, mergers, liquidations, bankruptcies, etc.) or other changes that cause a security to no longer meet the clearing depository eligibility standards.

Information on changes in the status of securities is validated by the Security Masterfile Clerk. Appropriate entries to the security masterfile database are then made by the Security Masterfile Clerk. Any changes that would cause the security to be deleted are discussed with management before action is taken.

Note: Securities cannot be immediately deleted if participants have positions in such securities. Action must be taken to clear those positions first. Security Masterfile coordinates such action with the Participant Services area. (See that section below.) That area then works with the participant(s) to clear positions.

All records pertaining to changes/deletions to the security masterfile database are maintained in the Security Masterfile area's files for future reference

e Other functions

The following information details functions other than the day-to-day work that are typically performed by Security Masterfile areas at clearing depositories

Besides the above responsibilities, the Security Masterfile department may be called upon to do eligibility comparisons with potential participants or other organizations to determine clearing depository service capabilities. This should be an automated comparison process. The function of the Security Masterfile staff would be to coordinate file transmissions, and ensure that results were provided as needed. Analysis of differences found through a comparison of security databases may also be required of Security Masterfile

The Security Masterfile area publishes periodical statistical reports related to the maintenance of the eligible securities database for management review. Such reports provide valuable information on the growth of the clearing depository

2 Securities Processing

a Purpose

The Securities Processing area is responsible for transactions related to the physical certificates held at the clearing depository. Under current Ukrainian law/regulation, these certificates include

- Certificates of immobilization
- Global certificates representing securities that are dematerialized (non-certificated). It is required under Ukrainian law that such securities must be held in a securities clearing depository. The clearing depository functions of the AUCD satisfy this requirement. The clearing function of the AUCD satisfy trade settlement needs
- Bearer securities. Servicing of this type of security may be phased into the AUCD. The Functional Specifications recommend that bearer certificates be dematerialized, similar to registered securities, for processing within the AUCD. Therefore, processes described below for dematerialized registered securities would be the same for bearer securities

Note To date, no bearer securities have been issued in Ukraine. Therefore, this is not expected to be an issue for the AUCD during the first year of operation

All securities represented by these certificates will have met the eligibility requirements of the AUCD prior to being received in the Securities Processing area. Transactions include deposits, withdrawals, and safekeeping of the certificates.

b Deposits

Certificated registered securities will be deposited through presentation of security certificates or certificates of immobilization for transfer by the custodian participant to the registrar. The initiation of a deposit transaction will be entered to the AUCD system by the related custodian. This entry will create a pending transaction within the AUCD system. The Securities Processing Clerk will monitor pending transactions to ensure that they are completed on a timely basis. This may require follow-up work by the Securities Processing Clerk with the registrar.

Once the transfer is completed, the registrar will send an electronic notification to the AUCD in the form of a new electronic certificate of immobilization. The AUCD system will check the certification of notification for validity. Should any problem be detected, a report will be produced for internal use in researching and resolving such discrepancies. The Securities Processing Clerk will perform such research and arrange for a corrected certificate of immobilization to be sent by the registrar as necessary. Once the electronic certificate of immobilization has been determined to be correct, the AUCD system will automatically credit the related custodian.

Temporary *global certificates representing an issuance of dematerialized (non-certificated) shares* will be received by the Securities Processing Clerk from the issuer or its agent. This global certificate will be credited to the issuer's account. Final global certificates will be received once the issue size and ownership is determined. The number of shares represented by the temporary certificate will be debited from the issuer's account, and the number of shares represented by the final certificate will be credited to the issuer's account. The issuer will provide an electronic record on how many shares should be transferred from the issuer account and to which custodian account(s). This record will be edited by the AUCD system for security eligibility, clearing depository account numbers and total number of shares involved. Transactions that fail the edit will be suspended. The Securities Processing Clerk will be responsible for monitoring all of this process, receiving the global certificates for the good delivery check and safekeeping, and researching/resolving suspended items.

In all of the above processing, the check by the Securities Processing Clerk is critical. It is imperative that the AUCD receive proper documents that cannot be questioned at a later date. If there are any problems discovered during the above processes, the Securities Processing Clerk will be responsible for researching/resolving them through interactions with the registrar and Participant Services (on behalf of the participant).

c Withdrawals

Participants (custodians and issuers) may request the withdrawal of positions in immobilized securities. Such requests are entered to the AUCD system by the related participant through a file transfer or direct terminal input. This input will generate messages both to the related registrar and the AUCD system.

The registrar will act based on receipt of the electronic message by cancelling the existing certificate of immobilization, rematerialize the number of shares requested by the participant in the requested shareholder name, and issue a new electronic certificate of immobilization for the remaining number of shares to be held at the AUCD. The new certificate of immobilization will be transmitted to the AUCD. The certificated shares withdrawn will also be forwarded to the AUCD for review and further forwarding to the related custodian. Timely completion of this process will be monitored by the Securities Processing Clerk who will address delays with the registrar.

Note The system will have set up a pending transfer and will produce reports to facilitate this monitoring

Upon receipt of these certificates, the Securities Processing Clerk will check the new shares and certificate of immobilization for accuracy. If there are any problems, the Securities Processing Clerk will work with the transfer agent to correct them. Once the corrections are made, or if everything is received in order, the Securities Processing Clerk will close out the pending transfer in the AUCD system, and file the new certificate of immobilization for safekeeping, future reference and audit. The rematerialized shares will be forwarded to the participant with the appropriate documentation. The Securities Processing Clerk will be responsible for maintaining all pertinent records in a "closed" file.

d Safekeeping of Certificates

There will be no need to safekeep physical certificates of immobilization as these certificates will be kept in electronic form within the AUCD system. Global certificates will be held in a secure environment within the Securities Processing area and the Securities Processing Clerk will be responsible for maintenance of the files. If volume warrants multiple Securities Processing Clerks, a group of securities will be assigned to each clerk. The Securities Processing Clerk will be responsible for maintaining the certificate files by security.

Periodic audits of these records will be performed by the Internal Audit group (see that section). These audits will compare the total number of shares represented by the global certificates and the electronic certificates of immobilization with the aggregate number of shares held in participant accounts. The Securities Processing Clerk will assist Internal Audit in researching and resolving any differences determined through audits. Research and resolution of these differences are facilitated by detailed records as maintained by the Securities Processing Clerk.

A complete audit will also be performed by the AUCD's external auditors at least on an annual

basis The Securities Processing Clerk will also assist with the annual audit in researching issues as needed

e Reconciliation with Registrars

Periodic reconciliation is required between the records of the AUCD and the respective security registrars Initially, this should be done daily Later, a weekly reconciliation may be sufficient Reports will be generated by the AUCD system that reflect all transaction activity within a security The Securities Processing Clerk will use these reports will to perform the reconciliation process

Note Division of duties should be applied here For example, where a Securities Processing Clerk is assigned a group of securities for daily processes, another Securities Processing Clerk should perform the reconciliation on those securities

Differences between the two sets of records will be researched and resolved by the Securities Processing Clerk Documentation of all reconciliations as well as the research/resolution of differences will be maintained by the Securities Processing Clerk for future reference and audit inquiries

f Recordkeeping

The Securities Processing Clerk will be responsible for maintaining detailed records on all types of transactions as well as reconciliations with registrars These records will be needed to support all actions taken, respond to inquiries from various parties, research/resolve reported problems, and fulfill audit requirements

3 Cash Settlement

a Purpose

This Cash Settlement area is an extremely critical one as it is the final check on all transactions processed within the AUCD system This area is responsible for all tasks related to effecting the daily money settlement with participants of the AUCD system This includes the daily cash transactions between participants, maintaining proper bank relationships and balances, and, where division of duties can be accommodated, reconciliation of periodic bank statements

Note Where staff is so limited that division of duties is not possible, reconciliation of periodic bank statements should be assigned to the Accounting area

Under this work, the Cash Settlement Specialist interacts with settlement bank staff, participants, and internal departments as necessary to ensure the timely processing of settlement debits and

credits The Cash Settlement area must work within defined banking deadlines

b Daily Cash Settlement - Contractual Settlement

Contractual settlement is considered to be the primary method of settlement at the AUCD Therefore, all cash debits and credits except for trade-for-trade settlement will appear on the related settlement statements

The AUCD system will generate preliminary trade settlement statements for each participant on a daily basis A comprehensive listing of fees to be charged will be provided to each participant prior to charge date Reports on corporate actions will also be produced prior to the related cash settlement date The AUCD may also process adjustments to the settlement activity prior to the settlement date based on this initial review All of these reports will provide participants the opportunity to reconcile and forecast their settlement figure for each day

On settlement date, the clearing depository system will produce a final daily Settlement Statement for each participant that includes all cash activity This statement reflects the final cash amount that will be paid to/received from each participant The final statement will be given to each respective participant in electronic form A comprehensive listing will be received electronically (via terminal) by the clearing depository settlement staff, and, finally a report will be delivered to the settlement bank with the appropriate instructions on debiting and crediting the related participant bank accounts

Note Participant agreements will provide for the AUCD to be authorized to present these instructions to the settlement bank

By a designated time, the settlement bank will provide an electronic file to the AUCD, reporting debits against participant accounts that will be paid This will generate a notification to the Cash Settlement staff of any unpaid debits The Cash Settlement staff will attempt to resolve these items with participants Any unusual issues and/or debits that remain unpaid will be referred to the Surveillance staff for further work (See section on "Surveillance")

The electronic file from the bank will serve as the initial update to the AUCD system If additional funds are collected after this file is received, the Cash Settlement staff will record the movement of cash through the money entry screen of the clearing depository system The system will use this all of this information to produce entries on reports and generate activity in the Buy-in/Sell-out accounts where there are settlement failures

Detailed daily records of all settlement activity are maintained by the Cash Settlement area

c Daily Cash Settlement - Trade for Trade

The AUCD system will also provide for trade-for-trade settlement Participants will be

responsible for transferring funds to the AUCD settlement bank account prior to the delivery of securities against the trade. Such transfers of funds will carry trade identification information. The settlement bank will create an electronic file of all individual funds transfers related to trade-for-trade settlement, including the trade identification information. This file will be transmitted to the AUCD by a designated time.

The Cash Settlement staff will receive a report from the AUCD system that details specific funds transfers that match pending trade items as well as unidentified receipts of funds. The Cash Settlement Specialist will be responsible for researching/resolving problems and updating the AUCD system to clear pending trades related to unidentified funds transfers.

d Reconciliation

Reconciliation of the cash settlement transactions is a multi-step process that includes both contractual and trade-for-trade settlements.

- First, activity within the settlement bank account per AUCD internal records is balanced to system activity daily. This daily balancing entails completing worksheets, recording cash balances that reflect the day's activity for settlement, buy-in accounts, sell-out accounts, registrar fees collected, Settlement Fund monies, etc. as *reported by the system*. This must be *compared to* what the *manual records* of the operations department reflect. Differences must be identified and controlled through one "out-of-balance" list, researched and resolved by the operations staff within a 24-hour period.
- Next, the daily closing bank balance as reported to the bank is verified by the Cash Settlement Specialist. The next morning, the Cash Settlement Specialist obtains the closing bank balance and again verifies it to internal records. Differences are researched and resolved immediately.
- Finally, periodic bank statements as received from the settlement bank are reconciled. This can usually be done monthly considering that the daily comparisons are, in effect, reconciliations. Errors and other problems should be found at the time of preparing the daily work. The daily worksheets, out-of-balance lists, and bank balance verifications then facilitate the periodic reconciliation of the bank statements as received from the settlement bank.

The combination of the above processes ensures control of the bank account through immediate identification of out-of-balances. Reconciling items are researched and resolved immediately. Any items that cannot be resolved within one business day must be reported to management.

Reconciliation of settlement records to bank records/statements may be performed by staff within the Cash Settlement area. However, this reconciliation process must be performed by staff other

than those doing the daily cash settlement functions to comply with the need for division of duties. Where Cash Settlement staff is limited, an alternative is to have the Accounting area complete the reconciliation of bank statements, providing a check on the Cash Settlement work.

All of the above reconciliation work is supported through extensive documentation of the daily settlement process, bank reconciliations, findings and research/resolution of problems.

e Unpaid Settlement Debits

The Cash Settlement area will be the first to know when a participant has failed to pay its settlement debit. This results from the bank notification to Cash Settlement of the payment of debits as noted above. The Cash Settlement Specialist tries to first resolve the issue between the bank and the participant. The cause may simply be a delayed or "lost" transfer of funds within the banking network, the identification of which can be coordinated with the settlement bank. Where the problem cannot be easily resolved, Cash Settlement is responsible for notifying the Surveillance area of such failures. The Surveillance area will then investigate the non-payment(s) in more detail and take appropriate actions against the related participant(s). Surveillance keeps the Cash Settlement area informed on the clearance of the unpaid item and coordinates any actions needed by Cash Settlement.

The actions taken by Surveillance affect the control of cash in the buy-in/sell out accounts. The AUCD Cash Settlement staff will be responsible for making any needed cash adjustments to the AUCD system to reflect the release of monies related to buy-in/sell-outs. Under division of duties, the Surveillance staff must reconcile the cash in the buy-in/sell-out accounts to the value of the related securities. (See also "Surveillance")

Where participant failure results in a cash shortfall in the settlement bank account, the Cash Settlement Specialist will arrange for appropriate funding. (See "Bank Balance Control")

f Bank Balance Control

In addition to processing daily settlement activity, the operations staff will **project bank balances** for investment or funding purposes. Instructions will then be given to the appropriate party to place an order for the investment with the bank or deposit funds into the settlement bank account to cover any shortfall.

Investments of excess cash and/or Settlement Fund monies are made based on the policies set by the AUCD Board of Directors.

Note Typically, the policies of clearing depositories require investment in only the safest of instruments. This is because investments may place the participants at risk, not only the clearing depository as a corporation.

The Cash Settlement Specialist calculates the amount available for investment. The actual investment order may be placed from the Cash Settlement area, or may be delegated to an Accounting/Finance area where funds are accumulated from throughout the organization for investment purposes. Detailed records must be maintained on the calculation of funds for investment, what investments instruments were purchased, and earnings realized. Again, these records and analyses may be maintained and completed in the Cash Settlement area or assigned to the Accounting/Finance area.

A cash shortfall may be covered through use of the Settlement Guarantee Fund (participant cash failures only), excess operating cash, other cash, and/or accessing a previously established credit line with the settlement bank.

Note Establishing such a credit line will be discussed at the time of selecting a settlement bank.

Once the method of funding the settlement bank account is chosen, the Cash Settlement Specialist may be involved in actually moving funds into the account. At the very least, the Cash Settlement Specialist needs to monitor this process and consider the funding in daily settlement balancing and bank balance verification activities. The Cash Settlement Specialist will also arrange for the return of funds to the appropriate source once the shortfall is covered. Detailed records must be maintained on why funding was necessary, funding received, and disposition of funding.

Periodic analyses of both investments and funding should be made. Reports should include the amounts and reasons for financial changes. These analyses provide management with a tool to monitor the problems and growth of the clearing/clearing depository operations.

g Billing

The most efficient method for the collection of billing to participants is through the settlement process. This ensures prompt collection of these billing monies. If a participant defaults in payment of any debit generated by the billing, that participant is subject to any fines or other actions by the clearing depository that are related to settlement default under the AUCD rules. The possibility of such actions, therefore, is a strong encouragement to participants to pay the fees assessed against them.

Billing entries to the system may be made, either manually or automatically, to charge respective participant accounts for the amount due to the AUCD. The Cash Settlement area may be assigned the responsibility for processing these charges although it is anticipated that entries will be processed automatically by the AUCD system.

Note An alternative is to give the Accounting Department limited access to the system for the purpose of entering the billing. The responsibility for this work is set by the

AUCD management based on workflows and availability of staff

Usually, a set date is established for the processing of billing charges. A summary of charges is sent to participants prior to this date. This enables the participant to anticipate the debit in projecting cash settlement obligations.

Billing funds charged against participants (collected by the clearing depository) through the settlement figure will need to be segregated in the banking records by the Cash Settlement staff. This segregation facilitates the transfer of funds to a separate AUCD bank account for operating funds and/or inclusion in the bank balance projection by the Cash Settlement staff.

4 Corporate Actions

a Purpose

The AUCD must accommodate the application of corporate actions to securities held in participant accounts at the clearing depository. While there may be a variety of types of corporate actions, the AUCD system will initially support

- Cash dividends
- Stock dividends
- Stock splits
- Reverse stock splits
- Security name changes
- Creation of Beneficial Owner Lists for use by Registrars in other activities

The Corporate Actions area will be responsible for overseeing these processes and performing certain related tasks.

It should be noted that the procedures defining each type of corporate action still need to be developed within Ukraine. Therefore, the following workflow descriptions are based on standard processes known by the PwC specialist and typically found in securities markets.

b Distributions

Cash dividends, stock dividends, and stock splits are all forms of “distributions”. The Corporate Actions area will receive notification of such distributions from the issuer and/or its agent. In

addition, the Corporate Actions Specialists should monitor financial publications for announcements of planned distributions

The nominee name of the AUCD will be the shareholder of record, and, therefore, it is expected that this notification will be received from the registrar under routine procedures to inform shareholders. However, the AUCD should be proactive in developing relationships with the registrars that ensure timely receipt of such a notice.

Information related to announcements will be entered to the AUCD system Corporate Actions Diary by the Corporate Actions Specialist. This information will include the record date, payable date, and rate of the distribution as set by the Supervisory Board of the related company and approved by its general shareholders. Entries to the diary will generate various reports related to corporate actions as well as create pending entries to the appropriate participant accounts that will be triggered for payment by the Corporate Actions Specialist when appropriate (theoretically, on payable date when received from the registrar/paying agent).

The diary will be monitored by the Corporate Actions Specialist for additional actions needed under each distribution type. The first such action will be to balance the records of the AUCD as of the record date to the records of the registrar. Any differences must be researched and resolved immediately by the Corporate Actions Specialist. Failure to do so could result in losses by the AUCD under guarantees to participants related to this service.

Note Depending on timing and the AUCD system capabilities, the Corporate Actions Specialist may need to process manual entries to the AUCD system to adjust the payment of distributions and correct differences found through the reconciliation process

The registrar will use the results of this balancing to pay *cash dividends* to AUCD. The AUCD will then pass on these dividends to the participants based on positions on record date in those issues. The Corporate Actions Specialist will be responsible for ensuring timely collection of cash dividends on dematerialized securities from the registrar (or paying agent). The collection of the cash from the agent will prompt the Corporate Actions Specialist to trigger the AUCD system to disburse funds to the appropriate participants.

Where there is a *stock dividend or split* (increases to the number of outstanding shares), the registrar will authorize the AUCD to apply the appropriate number of shares to participant accounts. If the stock dividend or split involves an *immobilized security*, the AUCD will receive a new electronic certificate of immobilization. If a *dematerialized security* pays a stock dividend or split, a new global certificate will need to be issued to the AUCD by the registrar. Receipt and validation of these documents will, again, cause the Corporate Actions Specialist to trigger the AUCD system to make the necessary entries to the accounts.

Removal of the old global certificates and insertion of the new global certificates into the AUCD

files must be coordinated by the Corporate Actions Specialist with the Securities Processing Clerk. The timing of this exchange of certificates is critical. If it is not done at the exact same time that the distributions take place, balancing of the certificates on file to participant position records will be impacted. The records will not agree.

c Reverse Stock Splits

The opposite of a stock split is a *reverse stock split* where the total number of shares outstanding in a security is decreased. A reverse stock split may apply to both *immobilized and dematerialized securities*. Similar to the distributions described above, pertinent information will be entered to the AUCD Corporate Actions Diary.

Reverse stock splits will result in the reduction of the AUCD's nominee holdings and, therefore, positions in participant accounts. This reduction requires the surrendering of the "old" global certificate for a "new" global certificate or a new electronic certificate of immobilization that represents the consolidation of shares under the reverse stock split. The Corporate Actions Specialist coordinates this exchange of certificates, ensuring coordination with the Securities Processing area, timely processing by the registrar and verification that the new certificate is in good form and for the correct number of shares.

d Cash in Lieu of Fractional Shares

When the registrar applies the rate of a stock dividend, stock split, or reverse stock split to the nominee holdings, the result may include a fractional share due to the AUCD. The registrar will pay the cash value of that fractional share (based on a pre-determined share value) to the clearing depository. Likewise, applying the rate to participant positions within the AUCD may result in fractional shares due to participants. These fractions will be paid to participants by the AUCD in cash.

The Corporate Actions Specialist will be involved in selling whole shares received from the agent. The cash proceeds of such sales will be used to cover the payment of fractional shares as described above.

e Name Changes

A security identification code (ISIN) will have been assigned to each security eligible for processing in the AUCD. Should a company change its name, the ISIN may or may not also be changed. If the ISIN is not changed, the system implication is only for the Security Masterfile area to change the name recorded in the Security Masterfile database. If the ISIN is changed, the system, based on the appropriate entries through the Security Masterfile maintenance screens, will convert all existing positions, unconfirmed and unsettled trades to the new ISIN number.

In either case, the related certificates (electronic immobilization or physical global) will need to

be updated by the registrar in the new company name. The Corporate Actions Specialist will be responsible for initiating, tracking, and completing this exchange. All of this must be coordinated by the Corporate Actions Specialist with the Securities Processing Clerk. As with stock dividends and splits, the timing of this exchange of certificates is critical. If it is not properly coordinated, balancing of the certificates on file to participant position records will be negatively impacted.

All of the above actions will, of course, be prompted by a notice of the proposed name change from the issuer, registrar, or found in a financial publication.

f Reconciliation

Cash dividends and cash-in-lieu payments (dividends) received by the AUCD from the registrar/paying agent will be deposited into an AUCD bank account. This may be the same account as used for settlement purposes, or a separate account established specifically for dividend collections. If the settlement bank account is used, the Corporate Actions area needs to coordinate with the Cash Settlement area the identification of dividend funds deposited. These funds need to be segregated on the Cash Settlement records for application to cash dividend distributions to participants. Where there is a lot of banking activity, a separate bank account for dividends is preferable.

In either case, the Corporate Actions area must reconcile cash in the bank to cash distributed to participants. Presumably, a check is performed at the time of collection (volume and time permitting), comparing it to the disbursement amount anticipated. However, a follow-up bank reconciliation must also be done. Any out of balance conditions determined through a reconciliation must be researched by the Corporate Actions Specialist. To the extent possible, such out of balances must be corrected. Where corrections cannot be made, the out of balance is carried in the related bank account subject to claim by another party or write-off (as determined through Ukrainian law). All of this, reconciliation and results, must be thoroughly documented by security and payable by the Corporate Actions Specialist.

Reconciliation of stock dividends and splits will be accomplished through reconciliation by the Corporate Actions Specialist of positions in the internal dividend account (discussed below). An additional check is realized through the balancing shares deposited to certificates on file and audits in the Securities Processing area.

An internal corporate actions account will be used as the offset to participant credits for all types of distributions and reverse splits. Cash and securities position reports will be provided by the system and used by the Corporate Actions Specialist to monitor and reconcile all corporate actions activities.

g Beneficial Owner Lists

As noted above, the AUCD will be required to provide beneficial information to issuers and/or their agents to support cash dividends. There will be additional reasons to create Beneficial Owner Lists for the issuer or its agent to accommodate such occurrences as annual meetings, proxy voting, general mailings, etc. The AUCD system will be able to produce such reports based on entries made through the Corporate Actions Diary. It is expected that this capability will be for past, current and future dates. The Corporate Actions Specialist will receive requests for Beneficial Owner Lists, coordinate the production of same, and deliver the resulting reports to the issuer/agent.

All beneficial owner lists will be based on information obtained by the AUCD from the participants. Under normal circumstances, this should be accomplished through receipt of an electronic file which will be used by the AUCD system to produce a file to the registrar. Overseeing this exchange of information will be one of the tasks of the Corporate Actions Specialist. In an emergency, the Corporate Actions Specialist may need to prepare manual listings for the registrar.

h Problem Research/Resolution

The Corporate Actions area will need to research and resolve any problems that arise under this service as reported by the participant and other internal areas such as Cash Settlement and Participant Services. Such problems include, but are not limited to:

- Non-receipt of cash distribution
- Incorrect amount of a cash distribution credited to participant's account
- Non-receipt of stock distributions in participant's clearing depository account
- Receipt of stock distributions by incorrect participant
- Incorrect number of stock distributions credited to participant's account

The Corporate Actions Specialist will rely on the extensive internal records of the Corporate Actions area to address each type of problem reported.

i Other Corporate Actions

This section on corporate actions so far has assumed that only cash dividends, stock dividends, stock splits, reverse splits, and name changes will be processed within the AUCD system. These are the basic types of corporate actions typically handled by new clearing depositories in emerging markets.

Consideration should also be given, though, to the fact that other types of corporate actions may occur even prior to those addressed here. Due to economic conditions in Ukraine, companies may experience mergers, acquisitions, liquidations, and bankruptcies over the next 1-2 years. There is also the possibility of the issuance of rights and warrants, although these actions are

much less likely. The AUCD will need to be aware of all of these actions and accommodate them accordingly where securities eligible for clearing depository processing are involved.

This accommodation may simply be requiring the removal of positions in related securities from the clearing depository by the participants (or removal by the AUCD on behalf of participants). The participants would then deal directly with issuers and/or their agents in responding to such corporate actions. Another option would be for the AUCD to process non-automated corporate actions through the use of cash and position adjustment entries to the system. The AUCD management will need to make decisions on a case-by-case basis on how to proceed if such corporate actions occur.

B INFORMATION TECHNOLOGY

Information Technology will be responsible for the daily operation and maintenance of the AUCD computer System. To meet these responsibilities, the following sub-areas of functions should be developed:

1 Communications

a Purpose

The Communications area will be responsible for operating the system network efficiently, ensuring reliability, and meeting standards of operations. This includes development and maintenance of the actual communications network (hardware, software, and telecommunications needs), ongoing monitoring of the network, resolving user problems, system security, and providing interface specifications for users.

b Development, Maintenance, and Ongoing Monitoring of the Communications Network

The integrity of the AUCD communications network is critical to all clearing depository processes. Therefore, the staff in this area must continually monitor the network to ensure that it meets all the requirements of the user. Ongoing access to the system is mandatory. The slightest "down" time can create processing havoc within the industry and can easily have significant financial impact on the users.

The Communications area works with all users – internal, participants, and any other organizations interfacing systems with the AUCD. System specifications are developed by the Communications Specialists for internal use, as well as those specifications needed by all users.

c Resolving User Problems

To further support the management of the network, the Communications area includes a Troubleshooting/Help Desk. This area receives calls from both internal and external users, and must react quickly to resolve problems related to the system operation. Immediate attention to any type of problem within the clearing depository, software or hardware, is critical to its success. Extremely important as well is the communication of the status of problem resolutions to the users of the clearing depository.

d Training of Users

The Communications area assists the Training Department in the preparation of user manuals from the technical perspective. The Troubleshooting/Help Desk also alerts the Training Department to additional training needs based on the types of calls received from users as a result of perceived problems in operating the system.

2 Computer System Programming

a Purpose

This area provides for the maintenance and security of system software for the clearing depository. This includes performing minor software changes, writing certain programs, testing applications prior to their implementation, and ensuring system security through software protocol and security access packages as provided by vendors (where used). The Computer System Programming staff also assists in resolving user problems related to the software and system security issues.

b Maintenance of Software

Major system program needs may be outsourced to outside vendors. The Computer Programmer works with vendors in obtaining the costs, developing the required specifications, and overseeing the completion of the programs by the vendors. The Computer Programmer also oversees the testing of new and changed programs prior to their implementation in production.

The development of minor programs and lesser system changes are done by the AUCD staff in the Computer System Programming area. Software problems on a day-to-day basis are also researched and corrected as necessary by the Computer Programmers.

The Computer Programmer works with the other areas of Information Technology and the business departments of the clearing depository to perform acceptance tests for the final clearance of system programs prior to the installation of production versions. In addition, the Computer System Programming area assists in the coordination of programming needs as they

relate to the disaster recovery/business continuity plan

c System Security

The clearing depository will use a security software package to control access to the clearing depository system. The System Security Specialist ensures the continued use of such controls, and recommends changes and upgrades as the clearing depository system develops.

The System Security Specialist also ensures that new programs or changes to existing programs include the appropriate security protocols.

d Resolving User Problems

Both the Computer Programmer and the System Security Specialist assist in the resolution of user problems in their respective areas of expertise. These problems may be reported through the Communications Troubleshooting/Help Desk, Participant Services, or the Training Department.

Immediate attention to any type of problem within the clearing depository is critical to the success of the organization. Extremely important as well is the communication of the status of problem resolutions to the users of the AUCD.

e Training of Users

The Computer Programming area assists the Training Department in the preparation of user manuals and workshops from the technical perspective. The Computer Programming area also alerts the Training Department to additional training needs based on the types of calls received from users as a result of perceived problems in operating the system.

3 Computer Operations

a Purpose

The Computer Operations area performs the daily operation of computer hardware and running the clearing depository system jobs in accordance with performance standards (response times, service quality, and reliability). The work includes maintaining the operating environment (hardware and software) for both the AUCD computers and user terminals through job scheduling and ongoing monitoring of the system operation.

b Scheduling

Computer Operations begins each business day with the scheduling of system jobs using a scheduling package provided by the software vendor. If problems are encountered in running the

system, the Job Scheduler may become involved in any remedial actions

c Operating

The Computer Operators ensure that the computer hardware is functioning properly during the running of the clearing depository system. The Computer Operator continually monitors the progress of the system in processing each job. He/she reacts to any error messages or job stoppages that occur throughout the day.

He/she makes minor repairs to the hardware, and works with servicemen where more major repairs are needed. The Computer Operator keeps management informed on any hardware or system operating problems that cause seriously delays in processing.

d Other Functions

The data processed each day is maintained in a library of data in various forms of media. Backup files are also created and held at an offsite location. These functions are performed by the Computer Operator.

The Computer Operations staff also coordinates system processes with other clearing depository business managers. This includes:

- Coordinating with the disaster recovery manager for the implementation of business continuation policies as they relate to computer operations
- Coordinating with other technical and marketing teams for the delivery of the full AUCD services
- Coordinating and performing acceptance tests for the final clearance of system programs prior to the installation of production versions

Throughout all of the above, the Computer Operations staff ensures system security as it relates to the computer system operation.

C MARKETING DEPARTMENT

Initial contact with prospective participants and the maintenance of ongoing participant relationships is done through the Marketing Department. The coordination of sales of services, the necessary paperwork and system database maintenance for these relationships, and ongoing training needs of participants, as well as daily support is best done within this one department. All of this work is critical to maintaining proper relationships with the participants who are the customers of the clearing depository. It must always be remembered that the clearing depository

is a service organization that may also need to deal with competitors

Areas needed to support these efforts are

- Sales
- Training
- Membership
- Participant Services

Typical workflows for each of these proposed areas follow

1 Sales

a Purpose

The sales area identifies and contacts prospective participants of the AUCD. This area also must maintain ongoing relationships with active participants. This is accomplished through calls on prospective and active participants, related administrative functions, and identification of ongoing training needs of participants.

b Identify Prospective Participants/Maintain Active Relationships

The Sales area of the Marketing Department is responsible for identifying and contacting prospective participants of the clearing depository. Through such contacts, the Sales staff explains the clearing depository services and the benefits of being a participant.

The Sales staff also coordinates with Security Masterfile any comparisons of prospective participant security databases with those issues eligible in the clearing depository system. This provides the potential participant with an idea of how quickly and completely the clearing depository can meet the needs of that organization.

Besides soliciting new business, the Sales staff also remains in contact with active customers through periodic meetings and telephone calls to ensure that the clearing depository is fulfilling all expectations, and that any problems the participant is encountering in using the clearing depository are addressed quickly. The need for services from the clearing depository by the customer base is also initially identified through such contacts.

c Administrative Functions

In working with prospective participants, the Sales staff provides assistance to the organization in

completing the package of forms and agreements required to support membership at the clearing depository. Existing participants may be required to sign additional agreements and complete additional forms to subscribe to new services. All documents are forwarded to the Membership Department and eventually the Surveillance area to support decisions on acceptance of an applicant as a participant or use of a new service. The Sales staff assists the potential or active participant in correcting any problems encountered in completing and submitting forms and agreements.

d Training of Participants

Initial and ongoing training needs of potential and active participants are identified through the contacts made by the Sales staff. Such training needs are referred to the Training Department. The Sales area provides input to training programs as well as the development of user manuals (see also "Training")

2 Membership

a Purpose

The Membership area maintains the participant account system database as well as all hard copy documents and agreements related to participant memberships. The database drives the services provided to participants based on the account structure. The documents and agreements support the input to the database and any legal needs between the clearing depository and participants. All of these tasks include both custodian and issuer participants.

b Participant Account System Database and Related Records

The Sales staff notifies the Membership area of a potential participant for the clearing depository. The Membership area supplies the Sales staff with a package of necessary agreements and forms to be completed by the potential participant. This package will have been developed with assistance from the Legal area to ensure that agreements carry the proper language and that all participation criteria are met. The forms in the package facilitate input related to the participant profile to the account masterfile database.

The Membership Clerk reviews the completed package when it is returned by the Sales staff. This review is done to ensure completeness and accuracy of all documents. A cursory review to ensure eligibility for participation is done by the Membership Clerk through these documents. The file is then forwarded to Surveillance for final approval. (See also section on "Surveillance")

After the Surveillance area has accepted the applicant, Membership adds the new participant profile to the system account masterfile database. This is done through terminal access to the

account masterfile sub-system. Online editing is done by the system. The Membership Clerk immediately corrects any problems with the input to enable the account to be added to the system.

The Membership area updates the account masterfile database as changes to the participant profile are known. Deletions of participants who have withdrawn from the clearing depository, or where the clearing depository ceases to act for a participant are also done by the Membership staff.

Note: The Surveillance area notifies Membership that a decision has been made to cease to act for a participant. Membership performs only the administrative functions to suspend/delete the account from the database.

All documents and agreements related to participant accounts are maintained by Membership for future reference. Statistical reports related to volumes and types of participants are produced periodically by Membership for management review. Such reports are valuable in monitoring the growth of the clearing depository.

c Approval Process

Once the initial administrative process is done and prior to adding the applicant to the participant database, the Membership Clerk forwards the file on the potential participant to the Surveillance area for final approval. The Surveillance Specialist performs an in-depth review of the potential participant including financial status and operating capabilities. If the potential participant is in compliance with all clearing depository rules and industry regulations, and if Surveillance feels that membership will not pose any unusual risk to the clearing depository system, final approval is provided.

Should Surveillance not approve the applicant, the Sales and Membership areas will try to resolve issues to obtain approval. Senior management and the Legal staff may be called upon to rule on disputes between the business departments. Management and Legal should also routinely be notified of membership refusals and the reason(s).

d Ongoing Administrative Work

The Membership Clerk is responsible for maintaining the account masterfile database. Notifications may be received from participants concerning firm management changes and other required profile information. The Membership Clerk will verify the information and make appropriate changes to the database.

The Membership Clerk will also be responsible for keeping all legal documents current. These documents may include various agreements with the AUCD. Most important is to ensure that the participants' custodian licenses are promptly renewed when approaching expiration (every three

years) This is absolutely necessary for continued participation in the AUCD. Any infractions of this requirement will be reported to the Surveillance area by Membership for further action.

3 Training

a Purpose

The Training area provides initial training to new participants, and ongoing training to active participants and other users on changed and new services. This is accomplished through informative seminars (especially important for implementation) workshops, very specific one-on-one training, and the preparation of various user manuals. The Training area is critical to creating a general awareness of the benefits of the clearing depository as well as teaching use of the system.

a Training Functions

Training is advised of potential new participants by the Sales staff. Assistance may be needed by the Sales staff in explaining general use of the clearing depository system. The Training staff supports this need.

Once the participant account agreements are negotiated, the Sales staff provides input to the Training area on the sophistication of the new customer and the level of training that is perceived to be needed (case by case). The Training area meets with the appropriate management of the new participant to discuss training plans. A training program is then customized for that participant, considering availability of the participant's staff, and timing of training completion. Such a program includes both general workshops about clearing depository service, and in-depth individual training in use of the system.

Training also develops training programs for internal users, and any other organization interfacing with the clearing depository. All areas of the AUCD provide input to Training on what types of training are needed.

As new services are added to the clearing depository, or existing services are changed, it is the responsibility of Training to ensure that all users are made aware of the additions and/or changes. Workshops are generally needed to fulfill this requirement.

b Preparation of Manuals and Other Materials

The Participant Manual is an important tool in the training of new participants as well as their ongoing reference in using the clearing depository system. This manual is prepared and updated by the Training Specialists with administrative help from Training Assistants and input from

other departments within the clearing depository

User manuals specifically directed at internal users and other organizations interfacing with the AUCD are also developed by Training. Similar to participant manuals, all areas of the clearing depository contribute to the material provided in user manuals. Updates to existing manuals are created by Training.

Besides user manuals, Training develops and produces promotional and explanatory literature on new services, changes to services, clearing depository rules, and other actions taken by the AUCD.

c Initial Industry Training on AUCD

The above sections describe the ongoing training that this area will perform. Even before this training occurs, the **AUCD must “train” the industry, and possibly even the general public**, on the functions and benefits of a clearing depository. This training will take the form of seminars and informative publications. The designated trainers will be charged with preparing, organizing, and presenting seminars. The informative publications will need to be designed and effective distribution methods developed.

Note PwC can also assist in this area through its “Train the Trainer” program as time permits during the current project

This training will be extremely important to the implementation and acceptance of the AUCD. The concepts of a clearing depository will be new to both industry participants and individual investors. **It is the obligation of the AUCD to provide reassurance and assistance during this major industry change.**

4 Participant Services

a Purpose

The AUCD must support all participants, both custodians and issuers, in the day-to-day processes. The general responsibility for this direct support lies with the Participant Services area. This area typically is placed in the Marketing Department as part of the ongoing support of participant relationships. A participant of the clearing depository is assigned a specific contact in this area known as a Participant Services Representative. This provides the participant with a direct source of assistance with all issues related to clearing depository activities. These include resolution of securities positions discrepancies found through the reconciliation process, liaison between participants and the AUCD’s Information Technology Department, researching problems/questions related to corporate actions, and some basic training of participants. Participant Services also monitors and assists participants leaving the AUCD in the process of

withdrawing/clearing existing securities positions prior to deletion of the participant account

The following sections address specific areas of assistance that Participant Services Representatives should be prepared to provide to participants. They must also be able to service the unique needs of custodians vs those of issuers (all participants)

a Day-to-Day Operations

The Participant Services Representatives assist participants with day-to-day use of the system. This includes, but is not limited to, answering general questions, responding to inquiries on trades recorded in the AUCD system, entering data to the AUCD system as requested by the participant (where the participant cannot do so directly), interpreting reports, etc. This type of *daily support* to participants is extremely important during the early stages of the clearing depository operation as well as in the ongoing environment.

The Participant Services Representatives maintain logs and records related to the daily assistance provided. This data is accumulated and used to prepare management reports on the frequency and types of issues addressed. This type of report provides management with a tool to monitor the growth of the clearing depository as well as patterns of problems that need special attention.

a Reconciliation Process

Timely reconciliation by the AUCD participants is necessary and required by the AUCD rules.

Note The Functional Specifications require that this be done within "3" business days

The participant must compare the information received from the clearing depository to internal participant records. Any discrepancies found are researched at the participant level first. If the participant's internal records are in error, the participant takes steps to correct the differences. If it is found that an error was made in processing at the clearing depository, the participant must report such errors to its Participant Services Representative within a certain number of days as specified in the AUCD rules. The AUCD must then research the discrepancies and make adjustments within the clearing depository system if warranted within a 48-hour timeframe. The Participant Services Representative checks the participant account on the next morning to ensure that the discrepancy was corrected. Any adjustments that cannot be made within the 48-hour time frame must be reported to the department management.

If the Participant Services Representative finds that adjustments to the AUCD system are not warranted, the participant is counseled on further action to be taken by the participant.

A report is given to management on a weekly basis, detailing calls from participants, their

respective problems, and the resolutions as they relate to day-to-day processing

b Liaison Between Participant and Information Technology

Participants contact their assigned Participant Services Representative whenever they encounter problems interfacing with the AUCD computer system. This includes both direct terminal access and transmission difficulties.

The Participant Services Representative then contacts the appropriate staff in the Information Technology Department to resolve the problem. It is determined through this process that there is a real technical problem or that the participant needs further explanation or training on the system to correct a perceived problem. In-depth training needs are referred to the Training Department. The Participant Services Department works with that area to develop a training program.

Follow-up work is done by the Participant Services Representative to ensure that, in any of the above cases, the issues have been resolved. A report is given to management on a weekly basis, detailing calls from participants, their respective problem, and the resolutions as they relate to the Information Technology Department.

c Corporate Actions

The AUCD receives notifications of and processes corporate actions accordingly as part of the services to participants. Should the participant identify any problem as a result of this process, the participant contacts their Participant Services Representative for assistance in resolving the problem. The Participant Services Representative assists the participant through interactions with the Corporate Actions Specialist in tracking the reporting between the clearing depository, participant, and the related paying agent.

Adjustments to the AUCD system information and/or participant records as determined through research may need to be done by the Participant Services Representative and/or the Corporate Actions Specialist. Appropriate authorization for such adjustments is obtained by the Participant Services Representative from the respective participant(s) as necessary.

Documentation of all problems and subsequent actions are maintained by the Participant Services department.

d Training of Participants

It is the responsibility of the Participant Services to ensure that participants receive proper training on the AUCD system. This includes both day-to-day training in system operations as well as in-depth training workshops for new participants and workshops for active participants on service additions and changes. Training through workshops is a joint effort between the

Participant Services and Training areas

User manuals play a key role in ongoing support for participant training. The Participant Services Department and other clearing depository business areas provide input to the manuals as appropriate. The Training Department designs, writes, and produces the actual material (see that section).

It is extremely critical that ongoing training occur. A high amount of information flows between the clearing depository and the participants that directly impacts participant positions and, ultimately, the beneficial owners of securities. To maintain the integrity of the system and confidence of the industry, processing must be highly accurate. The first step to accomplish this objective is through comprehensive training.

D RISK CONTROL

Under Ukrainian law, as an open joint stock company, the AUCD is not considered an SRO. However, because of its critical position in the capital market, the AUCD has a responsibility to implement risk control procedures as if it were an SRO. Many of these procedures are established within the various areas of the Risk Control department.

Note: The PwC team will also be working with the SSCSM during the course of the current project in the area of developing a proper SRO environment that will eventually include the AUCD.

The areas of the Risk Control Department are responsible for the general integrity of the clearing depository while minimizing risk to participants as well as the clearing depository as a business. The overall department is charged with ensuring that all users strictly adhere to clearing depository rules and industry regulations. Extremely sensitive material concerning the financial condition and operating practices of participants and other interfacing organizations passes through this area. Because of this, it is required that the Risk Control Department is separated from other operations, with separate management. Further, following this policy adds a comfort level for outside regulators.

Note: This is an example of required division of duties as discussed earlier in this paper.

The subdivisions within this department are as follows:

1 Compliance

a Purpose

The Compliance area is responsible for ensuring that the AUCD complies with all industry laws, regulations, and corporate business rules. This objective is met by first identifying all facets of compliance to monitor. Compliance must continually review changes in all of these areas and determine the impact on the clearing depository.

b Monitoring

Techniques will be developed by the AUCD for monitoring the system processing and policies to ensure compliance in the areas identified. Some of these techniques include reviewing and approving documented internal procedures, new products as they are developed and any changes made to existing products.

The Compliance area will make recommendations to the AUCD management on actions to be taken on non-compliance situations as they are identified. It will be the responsibility of the AUCD management to report significant compliance "breaks" to the SSMSC, and, where appropriate, the NBU (banking compliance) as regulators.

2 Surveillance

a Purpose

Surveillance monitors ongoing participant and security activity in the AUCD system, ensuring that risk is minimized and the integrity of the clearing depository processing is maintained.

b Participant Application Review

The Membership area forwards files for all potential participants to Surveillance. These files include all informational forms and agreements that have been completed by the potential participant. Final approval from Surveillance is required prior to the participant account being activated.

The review by Surveillance begins with review of materials in the file. The Surveillance Specialist checks to ensure that all informational documents have been fully completed, and that all required signatures on agreements and other forms have been obtained.

The Surveillance Specialist will then perform an in-depth review of the potential participant to ensure that participant eligibility requirements of both the clearing depository and regulators are met. This includes, but is not limited to

- Historical financial data on the potential participant
- Current capital and that it meets clearing depository requirements
- Operational/management structure and experience within the firm
- Technical (computer) expertise and capabilities at the firm
- Any historical or current litigation in which the firm is involved and the real or expected judgement, etc

The Surveillance Specialist provides all of the findings of the in-depth research, any recommendations there may be on allowing the firm to become a participant and initial Settlement Fund deposit requirements, as well as the documents from Membership to Surveillance management for final approval

Note A basic fund deposit requirement will have been established by the AUCD Surveillance may recommend an additional amount based on the applicant's history and intended use of the AUCD system

Once approved by Surveillance, the original Membership file is returned to that area All documents related to the investigation performed by the Surveillance Specialist are maintained in the Surveillance files due to confidentiality of information Surveillance files are available to that area for future reference After the participant profile is added to the account masterfile database by Membership, the Surveillance Specialist will activate the account at the appropriate time

Should an application not be approved, Surveillance will provide Membership with a reason for the denial Membership and/or Sales may choose to pursue clarification of conditions with the potential participant Senior management and often the Legal area are consulted where the various clearing depository departments cannot come to an agreement on the disposition of the application

Records on application approvals/rejections are maintained by Surveillance for future reference

c Settlement Cap Monitoring

A "settlement cap" (limit) will be assigned to each participant, based on a formula set by the AUCD Board of Directors This cap will be the maximum debit amount resulting from trading activity that will be allowed for a given participant on a given settlement day The system will calculate each participant's cap It will then track daily activity for each participant and compare any debit values to the cap A daily report will be generated by the system, reporting those

participants who are approaching or have exceeded their limit

The Surveillance Specialist will first contact participants to notify them of an impending cap problem. If unusual circumstances appear to exist, the Surveillance Specialist will notify the AUCD management who will decide on any further action necessary.

d Ongoing Monitoring of Participants

Surveillance is also charged with ongoing monitoring of participants and activity within the clearing depository system.

The financial conditions and operational practices of participants are monitored on a regular basis. This is accomplished through the review of financial reports as periodically submitted by participants in compliance with clearing depository rules, and annual examinations of participant in-house records by Surveillance staff at the offices of the participant.

The Surveillance Specialist also monitors activity in the clearing depository system to ensure compliance with established procedures and regulations. Where information is received about problems within the company operations of an eligible security, the Surveillance Specialist researches positions held by participants to ensure that the financial conditions of participants are not negatively affected through the amount of shares held as proprietary. (A severe decline in the value of a security held for the proprietary account may cause the participant to not be in compliance with capital adequacy requirements.)

Surveillance works with industry regulators to accomplish the above monitoring and to investigate financial or operational problems of a participant to which the regulators have been alerted and given notice to the clearing depository. This includes any serious grievances that have been filed with the regulators that have not been addressed by the clearing depository participant.

Note It is extremely important that all grievances submitted by individual investors be addressed first by the clearing depository participant. If calls are received directly by the clearing depository from the individual investors, they must be referred to their brokers and/or custodian for actions. The clearing depository should rarely deal directly with the individual investor.

The Surveillance Specialist takes appropriate actions within his/her realm of responsibility where there are negative findings through the above monitoring. Recommendations are made to Surveillance management and/or senior management where actions are needed outside the scope of the Surveillance Specialist's authority. The Surveillance Specialist then proceeds as directed by management in taking actions against the participant.

Note Such actions include fines, suspensions, blocking positions, and ceasing to act

for a participant as set by the Board of Directors and provided for in the AUCD rules

Subsequent disputes by the participant related to such actions may require that the Surveillance area work further with senior management and Legal. If the actions include suspending or ceasing to act for a participant, Surveillance instructs Membership on what entries need to be made to the account masterfile database.

Periodic reports on the financial status of individual participants are produced by Surveillance and distributed to the appropriate senior management of the clearing depository.

Records are maintained by Surveillance on all recommendations and actions taken against participants for future reference.

e Settlement Fund

The clearing depository maintains a Settlement Fund to minimize financial risk of the clearing depository and its participants. There are various types of funds established internationally, but they may be generally categorized as:

- *Settlement Fund* to provide liquidity as necessary under the cash settlement process under participant cash failures. There is a minimum deposit requirement. This is adjusted periodically based on the individual activity in participant accounts.
- *Trade Guarantee Fund* to provide cash liquidity and supplement the purchase and sale of securities under participant failures. Contributions to this type of fund are normally based on the trading activity within each participant account, and may be described as “mark to market” on future settling trades. To ensure risk is minimized as much as possible, daily calculations of deposit requirements need to be done daily.
- *Supplemental Settlement Fund* deposits that required of specific participants that are found to be adding unusual risk to the clearing depository system. Usually, this risk is related to the trading environment, but may be other risk as well. It is preferable not to set a standard formula for this type of fund. This allows the clearing depository management the flexibility to require whatever amount is believed to be needed to limit the risk to the clearing depository and all other participants.

It is anticipated that the AUCD will guarantee trades. Therefore, one or more funds may be established to cover this obligation. Provisions for the required types of funds will be established in the AUCD rules to which all participants will agree upon becoming members of the clearing depository.

The formulas for any Settlement Fund and/or Trading Guarantee Fund will be set by the AUCD Supervisory Board. Therefore, the calculations and necessary reports may be automated. Since

the Supplemental Fund is required on a case-by-case basis, calculations will be performed manually based on the formula elected by the AUCD management. It is the Surveillance area that is responsible for seeing that all fund contribution requirements are met by participants.

The special need for a Supplemental Settlement Fund deposit is determined through the monitoring done by Surveillance. The Surveillance Specialist alerts the management of Surveillance of any unusual risk, and the participant(s) involved. Based upon the magnitude of the unusual risk, the manager of Surveillance will establish the amount of the supplemental Settlement Fund deposit. Senior management of the clearing depository is notified of the need to require a supplemental fund deposit. Where the unusual risk is deemed to be extremely high, senior management and Legal are consulted on the formula used to calculate a supplemental deposit. As the risk is diminished or removed, Surveillance approves the return of the excess funds to the depositing participant(s).

If a participant fails to meet Settlement Fund requirements (basic, trade guarantee, or supplemental) the participant is considered to be in default and subject to further action by the clearing depository. This may include temporary suspension of access to the AUCD until the requirement is met or a decision that the AUCD will cease to act on behalf of the participant. Surveillance takes or recommends to management such actions as appropriate. Where a decision is made to suspend participant activity, cease to act for a participant, or de-list an eligible security for cause, Surveillance ensures that the necessary entries are made to the participant account and security masterfile system database profiles.

Surveillance reviews reports on all types of Settlement Fund deposits for accuracy. The Surveillance Specialist will also be involved in reconciling the amount on deposit to AUCD bank records.

f Buy In/Sell Out Functions

“Buy In” and “Sell Out” accounts will be established within the AUCD system to control settlement failures, both cash and securities, by participants. Based on the entries made by the Cash Settlement Specialist, the system will recognize the failure to pay for securities delivered to a participant’s account. The related securities will be moved to the Sell Out account for control and potential sale by the Surveillance area. In the rare instance where securities are not delivered to cover sales, the related funds from the buying participant will be transferred to the Buy In account for use by Surveillance in purchasing shares to cover the trade.

If Surveillance is unable to resolve the failure with the related participant, and do so quickly, the Surveillance Specialist will enter orders to buy and sell securities as needed. The Buy In/Sell Out accounts will become one side of the trade for settlement purposes.

As necessary, the Surveillance area will coordinate cash movements within these two accounts.

with the Cash Settlement area. The Surveillance Specialist will also be responsible for reconciling these accounts, securities and cash, on a daily basis.

g Annual Participant Inspections

The Surveillance area will perform annual inspections of the records of participants as provided for under the AUCD rules. During these inspections, Surveillance will review procedures and activity as recorded by participants to ensure accuracy and compliance with all AUCD and industry rules and regulations. The Surveillance Specialist will also look for indications of operational and/or financial difficulties within the participant's business.

Surveillance will produce reports on all inspections, making any appropriate recommendations for corrective actions to be taken by participants where problems are identified. Future inspections include verifying that corrective actions actually took place.

Where serious infractions of rules/regulations and/or operational problems are identified, Surveillance alerts the AUCD senior management immediately. Recommendations may also be made on actions to be taken against the related participant. The regulator should also be notified of the Surveillance findings and any actions proposed by the AUCD.

h Monitoring of Securities

Surveillance will also monitor securities for unusual activity and/or problems within the related company. If it is found that a security is adding risk to the system, actions may be taken to suspend activity in that issue in the clearing depository. If deemed appropriate, the security may even be made ineligible for processing at the AUCD. Surveillance will take actions as necessary and/or recommend actions to management in this area.

3 Risk Management

a Purpose

The Risk Management area is responsible for limiting the exposure of the clearing depository as a business to participant failure and other liabilities.

b General Functions

Where Surveillance is charged with minimizing risk in the use of the clearing depository system, Risk Management is responsible for limiting risk to the clearing depository corporation, and, ultimately, the users of the AUCD. This is accomplished through, but not necessarily limited to

- Administration of all types of Settlement Fund monies as established by the Board of

Directors This includes any investment of such funds as provided for under the clearing depository's rules and reconciliation of balances with the Surveillance area

- Acquisition of corporate insurance against negligence, theft, fraud, etc
- Development and maintenance of a business continuity/disaster recovery plan for the business areas of the clearing depository (vs a plan for the technical processing as administered by Information Technology) This includes acquiring an offsite facility in the event that the current offices are not available under a disaster
- Participation in the settlement of individual investor grievances that have not been settled by the clearing depository participant and are related to clearing depository activity These should be minimal in nature, and should also involve the direction of the regulators
- Performance of audits at the participant level, obtaining written confirmation that participants agree with account holdings at the clearing depository Such audits are normally done quarterly

In summary of all of its responsibilities, Risk Management completes an annual review on the adequacy of risk controls in place at the clearing depository A comprehensive report on this review is provided to senior management Risk Management Specialists also investigate new methods to contain risk to the clearing depository, its participants, and ultimately to beneficial owners, and make recommendations to management on same Controls and methods in place are documented and available to Internal Audit, external auditors, and regulators

4 Legal

a Purpose

This area provides legal support to all clearing depository activities, necessary legal opinions on day-to-day activities, writing of clearing depository rules, and the application of rules and industry laws and regulations

b Day-to-Day Business

Legal works with all areas of the AUCD in conducting normal business Examples of such work include but are not necessarily limited to

- Vendor-related agreements

- Lease agreements
- Participant and other agreements with the clearing depository
- Negotiating credit lines
- Representation of the clearing depository in litigation proceedings

c Clearing depository Rules

Each time that the clearing depository adds or changes a service, the clearing depository rules must be updated to reflect the change. The AUCD business department considering such an action contacts Legal to discuss the intentions. Legal decides whether the action is truly an addition or change to services, or simply a change in procedures as referenced in the clearing depository's rules and participant agreements.

If only a change in procedure is warranted, then the AUCD simply needs to inform the participants. A formal notice is distributed by the AUCD and maintained on file for future reference.

Where a rule must be added or changed, Legal drafts the language. The draft is reviewed by and discussed with the respective business department(s) to which the rule applies. Once the final language is decided upon, it is filed with the regulator for approval.

The new service or service change that requires approval from the regulator is implemented upon receiving that approval.

d Application of Rules and Regulations

Whenever there is a question about the application of the clearing depository rules, industry regulations, or general business laws, Legal must be consulted. Legal will make the decision as to whether issues simply need business decisions or have legal implications. Business decisions are the responsibility of the AUCD management. Only where an action has legal implications will Legal provide an opinion. The AUCD senior management will then make decisions based on the legal opinion provided.

Examples of when Legal is consulted include but are not limited to the following:

- Interpretation and application of rules and regulations as they apply to services
- Interpretation and application of rules and regulations as they apply to actions against participants that may be taken by the AUCD

- Additions and changes to services
- Preparation of agreements between the AUCD and participants/other organizations
- Work with regulators as needed and as related to the clearing depository environment and processes
- Settlement of individual investor grievances that have not been settled by the clearing depository participant

It is extremely important that Legal be consulted on and kept well informed about the activities of the clearing depository. It is Legal that is actively involved in arbitration and litigation proceedings. Therefore, Legal must have the background and the foundation on which to represent the clearing depository. This only comes from close work with the business areas of the clearing depository.

E INTERNAL AUDIT

Under Ukrainian law, the AUCD is not considered an SRO. However, clearing corporations and depositories worldwide are SRO's. Therefore, the AUCD is being structured as an SRO in anticipation of it eventually receiving this status. Establishment of an Internal Audit department is critical to the success of an SRO. It increases the credibility of the SRO operations. Internal Audit facilitates the discovery of control issues/problems at an early stage so that corrective actions may be taken. The establishment of an active Internal Audit department reduces risk within the SRO, and, therefore, contributes to compliance to international standards.

1 Purpose

Internal Audit ensures internal compliance with clearing depository procedures and policies (including risk controls), and industry standards for operation. This is accomplished through periodic reviews of all AUCD departments, with reports on findings made to all levels of management and the Board of Directors.

2 Internal Reviews

The auditors of Internal Audit schedule periodic reviews of each of the business departments of the AUCD. These departments include those responsible for the actual functions of the clearing depository system, such as the Operations Department, Information Technology Department, Marketing, and Risk Control. The various areas of Support Services are also audited as appropriate, including Human Resources, Accounting/Finance, Administrative Services, Distribution/Mail, and Corporate Security.

Reviews are performed in each area at least once a year. Documented procedures, policies and risk controls are compared to actual internal practices. Where there are a large number of activities within a department, or where functions overlap between departments, reviews may be broken down into several reviews throughout the year, each with a smaller focus. Management may also request special audits of areas where it is perceived that there may be a serious operational problem or break in the following of clearing depository procedures and policies.

Reports are issued to management after each review. Included in such reports are the findings of the auditor(s) as well as any recommendations Internal Audit may have on procedure changes and/or additions. The management of the respective area(s) respond to the audit comments. Where there is disagreement with the findings, the departmental provides support for that disagreement. Where there is agreement on needed changes, the departmental management commits to a target date for implementations of changes. Internal Audit checks for these changes during the next review.

3 Assistance to External Auditors/Regulators

To meet international standards, periodic reviews must also be performed by external auditors and regulators. Internal Audit also assists these organizations in their work by acting as coordinator with internal departments to obtain specific information needed by the outside auditors. This reduces time and costs to the clearing depository that are associated with the work of the external auditors and regulators. This assistance also ensures that requests by external auditors are reasonable. Internal Audit also assists the AUCD management in responding to the reports of external auditors and regulators.

4 Special Internal Reviews

Internal Audit also assists management with special reviews performed upon request. These reviews may relate to a concern that management has about a specific department or process. It may also be appropriate for Internal Audit to review new services or processes after their implementation to ensure that they are working properly. Special reports of findings are given to management after these reviews.

F SUPPORT SERVICES

The final main department recommended for the AUCD's organizational structure is Support Services. This department includes the sub-areas of

- Human Resources
- Accounting/Finance

- Administrative Services
- Distribution/Mail
- Corporate Security

A general overview of the responsibilities of each of these areas follows

1 Human Resources

This department would be responsible for recruiting and screening applicants based on skills and background versus requirements of open positions Requirements of incumbents should be established through a series of job descriptions Human Resources develops and administers a performance-based payroll system to support employment of the resulting staff members

Human Resources would also be responsible for the administration of employee benefits, assistance in the development of career paths, and arbitration of employee disputes

2 Accounting/Finance

Financial records of the clearing depository corporation would be maintained by the Accounting/Finance Department The processing of payables and receivables would also be the responsibility of this area This would include the processing of clearing depository billing to participants and the collection of same Banking functions related to any Settlement Funds or insurance funds are also normally performed by this area Payroll is processed in Accounting/Finance (vs administered in Human Resources)

3 Administrative Services

This area would be responsible for the purchasing of supplies and office equipment It would also oversee space planning for the clearing depository staff, furniture, and fixtures

4 Distribution/Mail

This area would be responsible for the critical function of distributing any hard copy reports and other communications to participants on a timely basis This would mean having documents sorted and available for local participant pickup and shipment to out-of-town locations

The Distribution/Mail Department would also be responsible for the processing of routine

incoming and outgoing mail for the clearing depository

5 Corporate Security

The Corporate Security department would be responsible for the screening of clearing depository staff members for security clearance as required for employment and access to clearing depository facilities. Messengers from local participants should also be checked by Corporate Security before being granted routine access to the clearing depository. Identification badges allowing access to the clearing depository would be issued by Corporate Security.

A staff of security guards from an outside service would continue to be used at appropriate locations within the clearing depository's physical facility. Such guards would report to this area.

The above areas are standard to many businesses. Therefore, the AUCD management should not need detailed guidance in the related workflows and job descriptions. Similarly, job positions for secretaries, receptionists, file clerks, etc. have not been included in this paper. However, the PwC consultants will provide assistance to the AUCD management as needed and as time is available to establish these areas of responsibility throughout the current capital markets project.

V JOB DESCRIPTIONS

In describing the above workflows, reference has been made to specific job positions within each department. Job descriptions have been provided with this report for each of these positions. These job descriptions detail

- The basic purpose of each position being described
- A listing of the primary responsibilities of each position
- An overview of the experience and skills needed for each position

The final area needed in a job description is educational requirements. This has not been completed by PwC. The educational requirements should be determined by the AUCD management based on Ukrainian educational objectives.

Only the primary responsibilities of each position are listed within the job descriptions. There may be lesser duties of the individual and/or management may need to assign functions temporarily to the staff resources available during a period of high volumes or in an emergency situation. A paragraph clarifying that this is the case and that the responsibilities are not limited to those listed is included in each job description. This is necessary to avoid employee grievances related to defined responsibilities.

The job descriptions should be subject to a minimum of two approvals with three approvals being the optimal number. The levels approving the descriptions should be the management level to which the position directly reports and one to two levels higher.

The job descriptions prepared for this report are attached in Appendix A. The areas of Management and Support Services are excluded from this work. Management requirements and desired skills should be set by the AUCD Supervisory Board, and job descriptions at this level are normally very generic. The staff positions for Support Services are standard to many businesses. Therefore, the AUCD management should not need guidance for these positions. PwC will, however, be available as needed to assist in these areas throughout the project duration.

The purpose of the job descriptions provided with this paper is to focus on the unique staffing needs of a clearing depository. If options to collapse the departmental structure are elected for the initial stages of the clearing depository, then job descriptions may be combined to compliment the staffing needs. (See "Compressed Organizational Structure")

VI MANAGEMENT STRUCTURE

Typically, the management structure of a securities clearing depository follows the pyramid philosophy of management, with the number of management positions increasing from the top down. The clerical staff is then of such a number as to provide a road base under the management levels. Decision-making powers and amount of responsibility increase upward through the levels of the pyramid. This structure also supports the mandatory division of duties within a clearing depository. Policy decisions are reserved for the most senior management levels.

Following the above philosophy and considering the proposed organizational structure for the All Ukraine Clearing depository, the ultimate management structure for the AUCD from the top down would be as follows:

- Supervisory Board
- Management Board
- President (Chairman of Management Board)
- Vice President(s) (Members of Management Board) In a pure pyramid structure, and, what is more important, to ensure division of duties, there should be at least two Vice Presidents. One would be responsible for the clearing depository's functions, the other, information technology and support functions. This division is appropriate as the skills, educational background and work experience are different for these two distinct areas of responsibility: business operations and computer systems.

Note: Titles of President and Vice President are used for purposes of discussion. They may be replaced with more appropriate titles based on the ultimate AUCD corporate charter.

A third Vice President could also be added. This would be the result of splitting the clearing depository functions into a) business operations and b) oversight departments for risk control. Typically, this division of duties is a requirement of auditors and regulators.

Other variations might include adding Executive Vice President and Senior Vice President levels. However, this would only be necessary under very mature and well-developed clearing depository organizations.

- Managers – This level would represent the main department heads and would report to the Vice President level. Managers would have the broad management responsibilities of five of the main departments previously identified as
 - Operations Department
 - Information Technology
 - Marketing
 - Risk Control
 - Support Services

The Internal Audit department should also have a manager, but that position would report directly to the President and, as necessary, to the Supervisory Board. This reporting structure maintains the integrity of the clearing depository.

- Supervisors – This level would report to the Managers and would be responsible for overseeing the individual areas within the above main departments. For example, there would be a Supervisor for each of the areas within the Operations Department which are Security Master, Security Processing, Cash Settlement, and Corporate Actions (4 supervisors).

The above management structure is appropriate for a developed, full service clearing depository. It is recognized that this may be too extensive for the AUCD at the time of implementation. Ideas for a more compressed version may be found in “Adjusted Management Structure”.

VII COMPRESSED ORGANIZATIONAL STRUCTURE

The previous sections of this paper discuss a detailed organizational structure for the AUCD. At the time of implementation, though, it is unlikely that such an extensive departmental structure will be needed by the AUCD. Therefore, this section offers a compressed structure from which the AUCD organization can grow into a more expanded version.

In using a compressed organizational structure, however, consideration must still be given to

- Services to be provided to participants
- Estimated activity volumes
- Division of duties

Note “Division of duties” provides for the necessary check points and safeguards against collusion between employees and participants of the clearing depository. Such division of duties is typically a routine requirement of auditing groups and regulators. Therefore, departmental and staff responsibilities must address this issue and comply with international auditing and regulatory requirements. In addition, it is just good business sense to develop these check points and safeguards.

- Audit requirements to meet international standards
- Administrative/support functions

Services and estimated volumes have been established in the “Assumptions” section of this paper. These assumptions along with the critical aspect of division of duties have been considered in grouping the same tasks previously described to create broader functional areas of responsibility for the AUCD.

These functional areas should be used in establishing the initial organizational structure. The AUCD management can then decide when to create function-specific areas. (This will be a gradual growth process.) The AUCD staff will benefit from initially having a broader range of responsibilities. They can carry this experience with them as they move through the organization. The AUCD will benefit from having such a well-trained, experienced staff.

A CLEARING DEPOSITORY OPERATIONS

The Clearing depository Operations department should be established to deal with the day-to-day business processes of the clearing depository services. These processes as previously described in detail under "Narrative Departmental Workflows" include

- ***Participant Account Database Maintenance*** - As participant accounts are added, deleted or related information changes, the system database of related information must be updated. This database is critical to all system processing. Account types that will be maintained under this process are
 - Custodian (broker/dealer and non-broker/dealer)
 - Issuer
 - Buy-in accounts/Sell-out accounts

Maintenance of this database includes ensuring that participants continue to meet the membership eligibility requirements of the AUCD

- ***Security Masterfile Maintenance*** - This includes the administrative functions related to ensuring that issues meet the clearing depository's eligibility standards as established by the business rules, adding the security profiles to the system database via terminal input, and updating such profiles based on corporate actions and other pertinent information
- ***Participant Services*** - The clearing depository must support all participants in the day-to-day processes. This includes resolution of securities positions discrepancies found through reconciliation processes, inquiries about trades and their status, liaison between participants and the clearing depository's information technology group, researching problems/questions related to corporate actions, and the training of participants

Note *This department has been moved from the Marketing Department described under the full organizational structure. This is discussed further below*

- ***Securities Processing*** - Functions here include deposits, withdrawals, safekeeping and reconciliation with the registrars. Inter/Intra-Account delivery requests may also be considered under this area. The AUCD will receive inter/intra-account delivery request forms from the participants. Information on the forms will be validated by the AUCD staff and entered to the clearing depository system
- ***Corporate Actions*** - While volume is expected to be very low, the Functional

Specifications require that AUCD accommodate corporate actions on securities held in the clearing depository. AUCD will receive notifications of corporate actions from the registrars on a regular basis and take the appropriate actions to pass on the results to participants holding the respective securities.

- **Cash Settlement** - Daily participant debits and credits must be processed against the related bank accounts. Entries to the system to confirm receipt of funds needs to be done daily. Monitoring of these entries, bank activity and balances must be performed through cash projections and reconciliation of AUCD records to bank records.

The skills required of the staff members in these areas are similar. The tasks are inter-related. Therefore, it is possible to perform all of these tasks within one department until separation into specific areas is justified.

Strict processing deadlines for each task will need to be established. The staffing will need to be sufficient to meet these deadlines under rotation of assignments throughout the day. Some **division of duties** will also need to be met.

While all of these functions may be assigned to one, smaller group under the compressed organizational structure, it is **extremely critical for the AUCD management to closely monitor volumes.** Processes can quickly become unmanageable as growth in activities is experienced. It is imperative to the operations and credibility of the AUCD that staff and even management be increased as this growth/change is realized.

The other issue to consider in staffing is the provision for division of duties. Again, the credibility and safety of the AUCD must be protected.

B INFORMATION TECHNOLOGY

Obviously, all areas of Information Technology will be grouped together under the compressed organizational structure. These include

- **Communications**
- **Computer System Programming**
- **Computer Operations**

The staff hired for the Information Technology area will need to be able to cross over into multiple areas of responsibility. Each person may not have the skills or training to do all technical functions. However, **there needs to be sufficient flexibility among the staff** to ensure

that all responsibilities of this extremely critical area are covered

C RISK CONTROL

As a regulated and potentially self-regulated entity, the AUCD has risk reduction and oversight responsibilities. The areas of Risk Control as described under the full organizational structure include

- *Compliance*
- *Surveillance*
- *Risk Management*
- *Legal*

Monitoring ongoing participant and security activity in the system ensuring that the clearing depository itself complies with its own rules as well as industry regulations ensures that risk is minimized and the integrity of clearing depository processing is maintained. Under the compressed organizational structure, functions in this department remain grouped together. However, the priority of performing functions is established.

Surveillance of participant activity will be the first critical task for the AUCD under risk control efforts. This starts with ensuring that membership requirements are met by participant applicants before they are allowed to use the clearing depository. Once activity begins, it must be monitored to ensure undo risk is not being added to the AUCD. This risk can be added simply through the inexperience of participants in using clearing and clearing depository services, as well as unacceptable activities.

The addition of performing *compliance functions* should follow soon after establishing surveillance functions. If possible, this should be done even in parallel to surveillance. The staff, and even the AUCD management will need help in ensuring that they remain within rules, laws and regulations in performing their work. This is closely related to the *legal* work done by the Risk Control department. Therefore, it would be beneficial for the person performing compliance to have a legal background.

Major legal work can be outsourced until the establishment of a separate *Legal area* is justified. Corporate risk management techniques can be gradually phased in by the AUCD management and overseen by the management team until a separate *Risk Management* area is warranted.

To comply with the division of duties requirement, these functions must be assigned to

individuals outside of the other business areas

D INTERNAL AUDIT

Internal Audit is an area that can be established once the AUCD is fully operational. However, the *creation of this department should be done as quickly as possible*. Early reviews by Internal Audit will assist the AUCD management in ensuring that processes are being performed properly. Also, it will provide a certain *comfort level to the industry and regulators* in general.

E MARKETING

The full organizational structure calls for the Marketing Department to include the areas of

- *Sales*
- *Membership*
- *Training*
- *Participant Services*

The functions normally performed by Membership and Participant Services may initially be accommodated by the AUCD's Operations Department as described above. Sales and Training, though, need to be addressed separately. Tasks related to these areas cannot be absorbed by the Operations staff because of their own needs to be learning the system and the volumes of activities that will be encountered. Therefore, the sales and training activities need to be assigned to a separate group of individual.

The *Sales* staff of a Marketing Department is responsible for identifying and contacting prospective participants of the clearing depository. Through such contacts, clearing depository services and the benefits of being a participant are explained. Besides soliciting new business, this staff also remains in contact with active customers through periodic meetings and telephone calls to ensure that the clearing depository is fulfilling all expectations, and that any problems the participant is encountering in using the clearing depository are addressed quickly. The need to closely monitor relationships with participants will be especially critical in the initial stages of the clearing depository. Management has a vested interest in remaining in touch with what is happening. Therefore, for purposes of a compressed organizational structure, it is anticipated that the sales and relationship functions of a Marketing Department will be conducted by the AUCD *management team*.

At the same time, it is *imperative that training and informative materials be provided to the industry and the general public as appropriate*. Initially, the *management team* should also accept responsibility for these tasks. Support staff can be used to coordinate activities, but it is the management team that needs to “spread the message” on the clearing depository.

Note The PwC team of experts is also prepared to assist in this area

A full Marketing Department can be established by the AUCD once the clearing depository is firmly established.

F SUPPORT FUNCTIONS

Support functions include such areas as

- **Human Resources** issues – Benefits, employee relations
- **Accounting Department** - Financial records of the clearing depository corporation would be maintained by the Accounting Department. The processing of payables and receivables would also be the responsibility of this area. This would include payroll, the processing of clearing depository billing to participants and the collection of same.
- **Administrative Services** - This area would be responsible for the purchasing of supplies and office equipment. It would also oversee space planning for the clearing depository staff, furniture, fixtures, and computers.
- **Corporate Security Department** - This area should be responsible for the screening of clearing depository staff members for *security clearance* and access to clearing depository facilities and systems. Messengers from local participants should also be checked by Security before being granted routine access to the clearing depository. Identification badges allowing access to the clearing depository would be issued by Security.

All of the above functions can report to one manager. However, assignment of human resources issues should be separate from the other tasks for confidentiality reasons.

VIII ADJUSTED MANAGEMENT STRUCTURE

The previously discussed management structure supports the vision of the development of the AUCD. However, it is recognized that the AUCD will not have the luxury of a perfect management pyramid upon implementation of the clearing depository, nor does the compressed organizational structure warrant an extensive management structure. Specifically, reasons for the need to adjust the initial management structure include

- **Financial considerations** – It simply would not be financially prudent, or perhaps possible, to employ a large number of highly paid senior management people until participation volumes produce the revenue to support such a staff
- **Work volume/demands** – Similar to financial considerations, the processing volumes of the clearing depository, related functions, and staff added to support those functions must increase sufficiently to justify many managers and levels of same
- **Staff needing management *may also not be of a sufficient level*** to warrant several managers due to
 - Time needed to **identify necessary skills** for all levels – Job descriptions and requirements still need to be approved for the departmental staff and developed for all management levels as required by the AUCD’s Board of Directors. This process must be done before assigning individuals to specific positions. Not taking time to do this would spell disaster for the clearing depository because of arbitrarily assigning people to jobs
 - **Lack of qualified applicants** – Individuals with the proper credentials and work history may not yet be available
 - **Time to process qualified applicants** – Once skill levels and requirements are established for each position, they must be applied to applicants

In summary, a compressed organizational structure with minimal staffing requires adjustment to the management structure previously discussed. Options available to adapt the ultimate management structure to the initial needs of the AUCD are

- Assign multiple main departments to management available at the Vice President level. **Conflicts of interest and span of control** must be considered under this option

- Assign multiple sub-departments to management available at the Manager level. Similar to the above option, conflicts of interest and span of control must be considered.
- Create and hire at the Assistant Vice President level rather than as Vice President, and the Assistant Manager level rather than Manager. This will enable the AUCD to hire quality candidates that may not quite have the requirements of the higher level, but have the potential to develop. Later promotion of such individuals would recognize this development and outstanding performance.

Where this option is used, the reporting structure should remain consistent with the management pyramid. The Assistant Vice President would report to the President, and the Assistant Manager to either an Assistant Vice President or a Vice President. Not maintaining this chain of command could create conflicts of interests among departments.

- Further compress the management pyramid by assigning Managers to main departments, but still have those Managers report to the President.
- Temporarily spread support services among available management. Again, conflicts of interest must be considered if this option is used. For example, the Risk Control Department is one area that requires a demarcation of management from others. ***Time demands placed on interim management must also be considered***

It is highly recommended that whatever title is used, the main department heads, except for Internal Audit, should report to a Vice President. Internal Audit should report to the President and, under unusual circumstances, directly to the Supervisory Board. This will ensure that the most senior levels of management are in touch with all activity and problems encountered in the initial development and ongoing processes of the clearing depository.

It should also be noted here that the initial AUCD charter will require three (3) persons at the executive level upon implementation. This provides for a President and two (2) Vice Presidents. The responsibilities of the Vice Presidents should be divided into business operations and technological operations. This division works well as the skills and thought processes of these two groups are each unique while still complementing each other. Within the business operations, care must still be taken to ensure proper division of duties, especially where the areas of Risk Control are involved.

Where ***any option*** is used, it should be considered ***temporary***. Available ***management must continually monitor*** the development of the clearing depository and make adjustments as necessary. Dramatic changes should be addressed immediately and even anticipated through the

continual monitoring Under the growth of the clearing depository, work volumes can quickly get out of control

IX STAFFING

Based on the above section on a compressed organizational structure by functional responsibilities, the groupings for the AUCD are remain the same as for the more extensive organizational structure. These are

- Management
- Clearing Depository Operations
- Risk Control
- Internal Audit
- Marketing
- Information Technology
- Support Functions

However, based on the volume assumptions for the first year, the staffing requirements for the compressed version are, of course, much less than for the broader organization version. Considering these anticipated volumes and types of activities, the following additional staffing assumptions have been made

- The standard working day will be 8 hours
- By the end of the first year of operation, deposits of securities will be made at the rate of 200 per day (one per security), and sent to the transfer agent for registration in the nominee name (This is based on the 200 “blue chip” securities identified by the SSCSM which are expected to be settled through the AUCD) Returns from the transfer agent will also be 200 per day, bringing the number of routine items to be processed to 400 per day. An error rate of 20% is also reasonable for this period, or an additional 80 items for a grand total of 480. Assuming 5 minutes per item, the staff needed to process this work should be increased to 5 individuals by the end of the first operational year.
- Since the system will be available 24 hours a day, the IT area will eventually need to staff a total of three shifts: business day and two 8-hour “night” shifts. The work done after the normal working day will include running any necessary batch processes and producing reports for availability to participants the next morning. One person should be sufficient for each of the two late night shifts.

- Marketing responsibilities will be assigned to the AUCD management as appropriate for the first year of operation. However, some support for training will be needed in addition to the general operations staff. At year-end, though, the AUCD should have a formal Sales and Membership staff in place to allow management and other staff members to focus on clearing depository operations.
- Corporate actions will begin to occur during the first year of operation.
- Participant Services will need to be established within the first year. A Participant Services Representative can support 10 custodian participants during the initial stages of the clearing depository (questions, problems understanding, training, help with input, etc). With 64 custodians, this requires a staff of 6-7 people. The need to support issuer participant activity should be much less. Since activity for issuers is expected to be low, the 200 issuers could be divided between two representatives. This brings the total in Participant Services to 8-9 people by the end of the first year of operation.
- Surveillance responsibilities need to be fulfilled upon implementation of the clearing depository. By year end, the AUCD should begin to have risk control measures in all areas of compliance, risk management and enhanced surveillance. An additional management person should be put into place for these areas to fulfill division of duties requirements.

Considering the above assumptions related to staffing and the estimated volumes related to clearing depository operations, the recommended staffing levels for implementation and by the end of the first year of operation are

	<u>Implementation</u>	<u>1-year Operation</u>
• Management		
- President	1	1
- Vice President, Business Operations	1	1
- Vice President, Information Technology	1	1
- Vice President, Risk Control	NA	1
• Clearing Depository Operations	3	NA
- Security Masterfile	NA	2-3
- Security Processing	NA	3-4
- Cash Settlement	NA	2
- Corporate Actions	NA	1
• Information Technology	3	5
• Marketing	NA	NA

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-	Sales	NA	2
-	Membership	NA	2
-	Participant Services	NA	8-9
-	Training	1	2
•	Risk Control	1	NA
-	Compliance	NA	1
-	Risk Management	NA	1
-	Surveillance	NA	2
-	Legal	1	1
•	Internal Audit	1	2
•	Support Functions	3	5
	TOTAL	16	43-46

Although volumes may be low, questions and problems will be high initially until staff and participants are fully trained. As familiarity with the system and operational procedures improves, volumes will increase. Therefore, it is reasonable to expect a need for 3 people to cover all of the clearing depository operations described in the above related section on functional responsibilities.

Depending on the timing of activities, it is very likely that the clearing depository staff will need to be at least three (perhaps more) individuals to ensure that all processes meet AUCD and banking deadlines. To accommodate this temporary need throughout the day, AUCD may elect to move people between functions/areas as needed. Another option to the AUCD may be to have a staff of part-time and/or temporary help that can be called in to work as necessary.

Management must continually monitor staffing needs within the AUCD, making additions quickly when needed. Changes that impact volumes within a developing clearing depository can occur rapidly, and processes can easily become uncontrollable. It is extremely important that the ***AUCD retain the integrity of a high service level by ensuring timely and accurate processing.*** Since the AUCD system will initially be a highly manual environment for many procedures, ***appropriate staffing is critical to the success of the clearing depository.***

X OPEN ISSUES/POLICY DECISIONS

In considering the Functional Specifications and workflows for the AUCD, there are a number of policy and procedural decisions that still need to be made that relate to functional processes, and may also need to be included in the business rules. These are:

A POLICY

- Selection of settlement bank
- Determination of participant settlement bank requirements (i.e. only one designated bank or multiple)
- Eligibility requirements for both participants and securities
- Number of days within which participants must advise AUCD of activity and position differences in reconciling internal records to clearing depository accounts (Otherwise, the clearing depository is not liable for any financial loss to the participant as a result of clearing depository errors)
- Formula for Settlement/Guarantee Fund
- Formula for settlement cap
- Fines, penalties, suspension causes to be provided for in the rules
- Fees to be charged to participants
- Investment policies, including instruments to be purchased, distribution of income on Settlement/Guarantee Funds and monies related to Buy-ins
- Additional funding through operating cash, reserves, bank credit line
- Timing of dividend distributions, i.e. upon collection from the registrar/paying agent or another date

B PROCEDURAL

- Forms to be designed -

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- Participant applications
 - Account additions, deletions, changes to be completed by the participant and submitted to AUCD for processing
 - Security masterfile additions, deletions, changes
 - Cash settlement worksheets
- Development and timing of management reports
 - Complete documentation of initial business operating procedures
- Note The basic procedures manual will be produced by PwC*
- Settlement bank agreement
 - Participant agreements (broker/custodian and issuer)
 - Establishment of relationships with registrars

The above list is not intended to be exhaustive. It only addresses immediately identified issues. The AUCD management must continually update this list as development of the clearing depository progresses.

XI FUTURE CONSIDERATIONS

The recommendations provided within this report are only a beginning. The development of the clearing depository will be a continuing process. ***Management of the AUCD will need to periodically review volumes, workflow, and potentially new services as participation expands.*** The initial broad-based departments will need to be further divided, and areas regrouped under additional Vice Presidents, Assistant Vice Presidents, Managers, and Assistant Managers. For example

- ***Records Retention*** – Throughout the narratives on workflows, the maintenance of records is mentioned. Initially, this can be handled by the respective departments and areas. However, records retention and management needs will increase dramatically as the AUCD develops and grows. Even though most functions will be automated, some will still need to be done manually. The simple need for management information creates the requirement for good background records. Management reports themselves create volumes of paperwork. The use of microfilm, microfiche, and/or other types of image processing requires administration. Provisions for the retention of records are made within laws, regulations, and rules. The AUCD will need to consider establishing a separate department to oversee all of the processes related to records management and retention.
- ***Legal Department*** - The recommended organizational structure includes Legal in the Risk Control Department. This could become a standalone department if legal needs for the AUCD warrant such a change.
- ***Human Resources*** - Demands on this area will increase relative to staff growth. It may be desirable to establish skills training and continuing education programs. Employee benefit plans and the use of same will continue to change. The potential of arbitration of employee differences will increase as the employee base expands. All of this may justify separating this department under an additional Vice President.
- ***Product Development*** - The addition of this area would be important to ensuring that the clearing depository system meets the needs of the industry. It would also address future service considerations by the clearing depository, and be responsible for the development of new services. Such a department would be incorporated into the Marketing Department, and would work both with the business and technical sides on projects.
- ***Procedure Writing*** - Initially, PwC will draft the basic procedures for the new clearing depository. The management of the various departments could probably then maintain the procedures used by the staff. However, this can become very time-consuming. As a result, the extremely important process of documenting procedures is neglected as the demands of

the daily work become a priority of the managers. The employment of a staff of procedure writers ensures that this task is accurately maintained on a timely basis.

- **Quality Assurance** - This is an area often added by clearing depositories. Routine functions of all departments are periodically sampled to insure accuracy of processes. Reports are then provided to management on the findings of Quality Assurance.
- **Business Continuity Plan/Disaster Recovery** - Provision for disaster recovery in the Informational Technology area has been made within this report. The AUCD will need to expand such plans to address the business side of business continuity and disaster recovery.

XII SUMMARY AND NEXT STEPS

PricewaterhouseCoopers (PwC), under contract with the United States Agency for International Development (USAID), is currently working with the Ukrainian capital markets, providing assistance to develop the securities industry in Ukraine. A major part of this project is the creation of a market-driven clearing depository. The Functional Specifications for the AUCD were produced by PwC in January, 1999.

This paper provides on the organizational structure, workflows, and job descriptions based on the operational environment detailed in the Functional Specifications. Job descriptions for key positions may be found in Appendix A. Overview flow charts on primary functions may be found in Appendix B.

The recommendations within this paper on clearing depository organizational structure first describe what would be needed by a fully developed clearing depository operating under international standards. Since it is realized that this is too extensive for the AUCD at the time of implementation, a compressed version has also been offered. For both versions, both the departmental and management needs have been addressed.

Within the workflows, reference has been made to specific staff positions within each area. Job descriptions have been created by PwC and included with this paper as noted above. Under the compressed version of the organizational structure, the AUCD should combine certain job descriptions to fulfill the initial staffing needs.

An estimate of the initial staffing requirements has also been offered. This estimate has been based on certain assumptions as detailed in that section of this paper. Consideration has been given to the needs of the AUCD at the time of implementation and after completion of the first year of operation.

The PwC team of specialists will be available to the AUCD during the project to provide guidance and further recommendations in creating the organizational structure and hiring the appropriate staff. PwC will also assist with training of the AUCD staff on the organizational structure and workflows. Other areas related to the organizational structuring and growth that PwC may assist in where time is available during the project include:

- Industry training on the operation and use of the AUCD
- Establishment of support services areas within the AUCD
- Conductation of a "Train the Trainer Workshop" for the ACD staff to support ongoing internal and external training needs

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Additionally, PwC will write the basic internal operating procedures and produce a manual for the AUCD. Training will also be provided to the AUCD management team in how to develop and write effective procedures, as well as how to maintain the initial program established by PwC.

The PwC team of specialists looks forward to working with the AUCD management in all of these and other areas of the clearing depository development.

APPENDIX A – JOB DESCRIPTIONS

ALL UKRAINE CLEARING DEPOSITORY JOB DESCRIPTION

Title Securities Processing Clerk

Basic Purpose To process various types of certificates presented to and withdrawn from the clearing depository and maintain the records related to such processing

Principal Responsibilities

- 1 Receives temporary and final global certificates representing shares of dematerialized securities for deposit to issuer account(s) Oversees ultimate distribution of represented shares to other clearing depository participants and/or to be held as treasury stock on behalf of the issuer
- 2 Monitors receipt of electronic certificates of immobilization for credit to broker/custodian accounts Oversees entries to credit accounts with deposits of securities as processed by the AUCD system
- 3 Monitors withdrawal of immobilized securities from the clearing depository based on participant requests Works with issuer/agent to complete rematerialization requests Receives and reviews new certificated shares before forwarding same to custodian
- 4 Works with issuer and/or registrar to correct problems related to the processing of both certificates of dematerialization and electronic certificates of immobilization
- 5 Maintains records/certificates for all deposit and withdrawal transactions on which actions were based Researches/resolves any discrepancies as reported by participants through Participant Services, using departmental records

General Information

***Incumbent should have a minimum of one year working in a highly detailed environment
Previous experience in a computerized environment and data input skills are highly desirable***

Educational Requirements To be completed by AUCD management

The above statements are intended to describe the general nature of work being performed by the incumbent assigned to this classification. The responsibilities are not intended to be construed as an exhaustive list of all responsibilities so classified.

APPROVALS

ALL UKRAINE CLEARING DEPOSITORY JOB DESCRIPTION

Title Participant Services Representative

Basic Purpose To assist the participants (custodians, issuers and other financial institutions) of the clearing depository in day-to-day functions and interactions with AUCD, as well as determine actions that need to be taken in emergency situations. This includes reconciliation of positions, liaison between the participant and other areas internal to AUCD, and assisting in the training of participants.

Principal Responsibilities

- 1 Acts as the primary contact for participants at the clearing depository. Responds to inquiries from participants concerning clearing depository processes and relationship between the two organizations. Reacts as necessary to resolve routine and emergency situations related to clearing depository processing.
- 2 Assists participants in researching and resolving differences found by participants through the daily position comparison process. Works with participants to insure correct positions and dates were used for reports. Validates that both the clearing depository and participants updated positions based on dematerialization, rematerialization, deliveries to clearing corporations, and bonus share activity correctly and in the same manner. Confirms with Information Technology Department that correct transmissions were received and used for comparisons. Makes necessary adjustments to the clearing depository system. Arranges for adjustments to be made by participants as needed. Verifies that adjustments were done and differences in position records were corrected.
- 3 Assists participants in researching and resolving problems related to corporate actions. Tracks the reporting of information between the participant, clearing depository, and registrars. Arranges for adjustments to be made by participants where they were at fault. Makes appropriate adjustments to the AUCD system, obtaining participant approval for such adjustments as necessary.
- 4 Acts as liaison between the participant and the Information Technology Department. Assists in correcting terminal access problems at the participant. Helps to rectify transmission difficulties. Coordinates the re-transmitting of data between the participant and the clearing depository as necessary.
- 5 Assists in training the participants. Reviews procedures with the participant where routine difficulties are incurred. Refers in-depth training needs to the clearing depository's

Training Department Assists in developing workshops, and training and procedure manuals for participants

6 Documents all problems encountered by/with participants to the Participant Services files Prepares periodic reports to management on problems incurred by/with participants and their resolutions

General Information

Incumbent should have 1-2 years in a customer service-related position Excellent communication and negotiating skills are a requirement, as is the ability to work in a high-pressure environment with critical deadlines The individual must also be detail-oriented, have good math skills, and an ability to analyze information thoroughly and accurately Ability to use a calculator is also necessary Experience in a computerized environment and terminal access to a computer system is extremely helpful, and will reduce the training period

Educational Requirement

To be completed by AUCD management

The above statements are intended to describe the general nature of work being performed by the incumbent assigned to this classification The responsibilities are not intended to be construed as an exhaustive list of all responsibilities so classified

APPROVALS

**ALL UKRAINE CLEARING DEPOSITORY
JOB DESCRIPTION**

Title Cash Settlement Specialist

Purpose To effect daily cash settlement transactions between the AUCD, participants, and the settlement bank Also included are cash projections and bank reconciliations

Principal Responsibilities

- 1 Oversees processing all settlement debits and credits against respective participant bank accounts This includes presenting related information to the settlement bank and monitoring completion of bank responsibilities
- 2 Receives notification from settlement bank of any unpaid debits Records reason for unpaid item as advised by bank Communicates unpaid debits and related information to Surveillance area Coordinates with Surveillance disposition of unpaid debit, including collection of monies from participant or other action
- 3 Balances daily cash activity per AUCD records to bank records Researches and resolves differences determined through this balancing
- 4 Calculates daily cash projection, identifying funds available for investment or need to fund shortfall in settlement account
- 5 Maintains detailed records on daily bank activity, research and resolution of reconciling items, participant failures and disposition of same, etc

General Information

Incumbent should have 1-2 years in a banking or accounting position Excellent communication and negotiating skills are a requirement, as is the ability to work in a high-pressure environment with extremely critical deadlines Incumbent must be a highly responsible individual as failure to perform cash settlement tasks properly creates financial risk to the AUCD The individual must also be detail-oriented, have good math skills, and an ability to analyze information thoroughly and accurately Ability to use a calculator is also necessary Experience in a computerized environment and terminal access to a computer system is extremely helpful, and will reduce the training period

Education Requirements

To be completed by AUCD management

The above statements are intended to describe the general nature of work being performed by the incumbent assigned to this classification. The responsibilities are not intended to be construed as an exhaustive list of all responsibilities so classified.

APPROVALS

ALL UKRAINE CLEARING DEPOSITORY JOB DESCRIPTION

Title Corporate Actions Specialist

Basic Purpose To process corporate actions as taken by issuers against related participant accounts. Such corporate actions include cash dividends and interest, stock dividends and splits, reorganizations, mergers, bankruptcies, etc. Interacts with issuers and/or their agents as needed to complete corporate action functions within the AUCD system.

Principal Responsibilities

1. Receives notifications of corporate actions directly from issuers and/or their agents. Monitors financial publications as appropriate to identify corporate actions. Makes entries to AUCD corporate actions database based on information collected.
2. Monitors system-generated AUCD corporate actions diary for needed actions. Takes appropriate actions to apply corporate actions against participant accounts within the AUCD system.
3. Researches/resolves problems related to corporate action processing. These problems include differences in payments of corporate actions as reported by participants, position differences between the registrar and AUCD records, collection of cash distributions from paying agent, etc.
4. Provides beneficial holder reports to issuers and/or their agents as requested. Includes collection of data from participants, formatting reports, balancing positions, distributing reports, etc.
5. Maintains detailed records on all processes related to corporate action processing. Records are used for future research and support audit responses.

General Information

Incumbent should have 1-2 years in a basic accounting environment. Excellent communication and negotiating skills are a requirement, as is the ability to work in a high-pressure environment with critical deadlines. The individual must also be detail-oriented, have good math skills, and an ability to analyze information thoroughly and accurately. Ability to use a calculator is also necessary. Experience in a computerized environment and terminal access to a computer system is extremely helpful, and will reduce the training period.

Educational Requirement

To be completed by AUCD management

The above statements are intended to describe the general nature of work being performed by the incumbent assigned to this classification. The responsibilities are not intended to be construed as an exhaustive list of all responsibilities so classified.

APPROVALS

ALL UKRAINE CLEARING DEPOSITORY JOB DESCRIPTION

Title Security Masterfile Clerk

Basic Purpose To maintain the clearing depository system security masterfile database. This includes determining that securities meet clearing depository eligibility requirements, working with registrars in obtaining information on securities and insuring tri-party agreements related to securities are on file, and adding and updating information on securities to the system database through terminal input.

Principal Responsibilities

1 Researches securities to be added to the AUCD security masterfile database. Verifies information on and status of securities with registrars. Insures appropriate agreement between the issuer of the security, the registrar, and the clearing depository is on file. Obtains agreements in standard format where they are needed. Confirms that securities to be added to the database fulfill pre-established eligibility requirements of the clearing depository. Reports problems with agreements and/or eligibility requirements to manager.

3 Inputs information on securities to be added to the database to the clearing depository system via terminal access. Corrects errors in information as determined through on-line system edits. Ensures that security profiles are accepted by the clearing depository system for inclusion in the database.

4 Updates the security masterfile database with changes in information and status of eligible securities. Ensures that changes do not cause the securities to no longer be eligible for clearing depository processing. Notifies management and other internal areas of securities that no longer meet eligibility requirements. Deletes securities as necessary from the database.

5 Works with the Information Technology Department to resolve input and system processing difficulties.

6 Documents security additions, deletions and changes to the Security Masterfile Department records. Prepares periodic reports to management on the development and maintenance of the security masterfile database.

General Information

Incumbent should have 1 year of experience in a computerized environment and be skilled in data input via a computer terminal. Excellent communication and negotiating skills are a requirement. The individual must also be detail-oriented, and have an ability to analyze information thoroughly and accurately.

Educational Requirement

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APPROVALS

**ALL UKRAINE CLEARING DEPOSITORY
JOB DESCRIPTION**

Title IT Communications Specialist

Basic Purpose To develop and maintain the communication network that supports the clearing depository system This includes investigating and making recommendations on communications software and hardware, monitoring the operation of the communication system, and working with the Department of Telecommunications

Principal Responsibilities

- 1 Works with outside vendors to research communications software and hardware that is available Makes recommendations, including cost studies, to management on the most efficient and reliable products to be used for the clearing depository system Reacts to management decisions on which products to purchase Performs preliminary negotiations on vendor contracts Works with vendors to install software and hardware
- 2 Works with the Ukrainian Department of Telecommunications (DOT) to insure the use of the highest quality of communications technology available This includes both dedicated telecommunications lines as well as satellite connections Continually negotiates with DOT to improve facilities
- 3 Monitors daily operation of the communications network to insure that it meets critical deadlines and established performance standards Reacts immediately to correct communications problems identified through monitoring Also reacts to internal and external user problems as reported through the Troubleshooting/Help Desk within the Communications department Keeps all parties involved updated on status of correcting problems Informs management of serious problems impacting timely clearing depository processing
- 4 Coordinates with the disaster recovery manager for the implementation of business continuation policies as they relate to the system communications network This includes arranging offsite facilities and services from all communications suppliers
- 5 Ensures security of telecommunications access to the clearing depository system Immediately reports breaks in security to senior management
- 6 Documents various aspects of the operation of the communications network, including all problems encountered by the Communications department and all users as reported through the Troubleshooting/Help Desk Prepares periodic reports to management on the operation of the communications network, problems encountered and their resolution

7 Assists the Training Department in preparing workshops, technical user manuals, and specialized training for all users of the clearing depository system. This includes providing clarification on technical operations, as well as providing copies of and designing system specifications, reports, and terminal screens related to current and new processes.

General Information

Incumbent should have a minimum of 4 years in the field of development and operation of computer and telecommunications networks at the same level as used by AUCD. Extensive work with the Department of Telecommunications is essential. Excellent verbal communication and negotiating skills are a requirement. The ability to work under strict time deadlines in a high-pressure environment is needed. The individual must also be detail-oriented, have an ability to analyze information thoroughly and accurately, make decisions decisively, and react quickly to insure the integrity of the clearing depository's communications network.

Educational Requirement

To be completed by AUCD management

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APPROVALS

ALL UKRAINE CLEARING DEPOSITORY JOB DESCRIPTION

Title Computer Programmer

Basic Purpose To maintain the software environment of the clearing depository system This includes investigating and making recommendations on system software for major programs as obtained from outside vendors, overseeing the installation of purchased software, writing lesser programs, and making minor changes to existing programs

Principal Responsibilities

- 1 Works with outside vendors to research system software that is available Makes recommendations, including cost studies, to management on the most efficient and reliable products to be used for the clearing depository system Reacts to management decisions on which products to purchase Performs preliminary negotiations on vendor contracts Works with vendors to install software
- 2 Performs minor software changes to the AUCD system programs Works with outside vendors in the completion of more complicated program changes and new software Works with the Computer Operations Scheduler and Operator and other business areas to coordinate and perform acceptance tests for the final clearance of system programs prior to the installation of production versions Writes system specifications to be used by participants and other organizations in interfacing their internal systems with the clearing depository system
- 3 Reacts immediately to correct software problems Also reacts to internal and external user problems as reported through the Troubleshooting/Help Desk and other internal areas Keeps all parties involved updated on status of correcting problems Informs management of serious problems impacting timely clearing depository processing
- 4 Coordinates with the disaster recovery manager for the implementation of business continuation policies as they relate to the system programs This includes insuring recovery software is in place
- 5 Documents various aspects of the software development and use, including all problems encountered by users as reported through the Troubleshooting/Help Desk and other internal areas Prepares periodic reports to management on software problems encountered and their resolution
- 6 Assists the Training Department in preparing workshops, technical user manuals, and specialized training for all users of the clearing depository system This includes providing

clarification on technical operations, as well as providing copies of and designing system specifications, reports, and terminal screens related to current and new processes

General Information

Incumbent should have a minimum of 4 years in the field of development of software at the same level as used by AUCD. Skills in writing basic programs and making minor software changes are also required. Excellent verbal communication and negotiating skills are a requirement. The ability to work under strict time deadlines in a high-pressure environment is needed. The individual must also be detail-oriented, have an ability to analyze information thoroughly and accurately, make decisions decisively, and react quickly to insure the integrity of the clearing depository's computer system.

Educational Requirement

To be completed by AUCD management

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APPROVALS

ALL UKRAINE CLEARING DEPOSITORY JOB DESCRIPTION

Title System Security Specialist

Basic Purpose To ensure the security of the clearing depository system This includes both terminal input and physical access to computer facilities, running of system jobs, etc

Principal Responsibilities

- 1 Works with outside vendors to research system security software that is available Makes recommendations, including cost studies, to management on the most efficient and reliable products to be used for the clearing depository system Reacts to management decisions on which products to purchase Performs preliminary negotiations on vendor contracts Works with vendors to install security software
- 2 Establishes procedures for obtaining and keeping system access Monitors compliance with such procedures This includes changes in staff status as well as changes at registrars, clearing corporations, and clearing depository participants Immediately notifies management of procedure breaks
- 3 Reviews all new system software and changes to existing software to insure that security protocols are in place Approves software only upon confirmation that appropriate security exists
- 4 Coordinates with the disaster recovery manager for the implementation of business continuation policies as they relate to the system security This includes insuring recovery security software is in place
- 5 Documents various aspects of the system security, including all problems encountered by users as reported through the Troubleshooting/Help Desk and other internal areas Prepares periodic reports to management on security software problems encountered and their resolution

General Information

Incumbent should have a minimum of 4 years in the field of system security at the same level as used by AUCD Excellent verbal communication and negotiating skills are a requirement The ability to work under strict time deadlines in a high-pressure environment is needed The individual must also be detail-oriented, have an ability to analyze information thoroughly and accurately, make decisions decisively, and react quickly to ensure the integrity and security of the clearing depository's computer system

Educational Requirement

To be completed by AUCD management

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APPROVALS

ALL UKRAINE CLEARING DEPOSITORY JOB DESCRIPTION

Title Computer Operator

Basic Purpose To oversee the daily operation of the AUCD computer system. This includes ensuring that critical processing deadlines and performance standards are met.

Principal Responsibilities

1 Monitors the operation of the computer hardware to insure continuity of clearing depository services and that critical deadlines and established system standards are met. Corrects minor hardware operating problems. Contacts hardware vendors as necessary to rectify more serious problems and repair hardware. Notifies AUCD management of operating difficulties that seriously impact the operation of the system.

2 Works with the Computer Operations Scheduler, the Communications area, and other business areas to coordinate and perform acceptance tests for the final clearance of system programs prior to the installation of production versions. Responsible for selecting, controlling, and executing the change management system.

3 Ensures computer system security in operating the clearing depository system. Immediately reports any identified breaks in security to senior management.

4 Assists the disaster recovery manager in the implementation of business continuation policies as they relate to the computer operations. This includes assisting in setting up offsite computer facilities and insuring that operations can quickly be recovered at those facilities.

5 Documents various aspects of the operation of the computer hardware, including the timeliness of system operations, all problems encountered, and their resolutions. Makes periodic reports to management on same.

General Information

Incumbent should have a minimum of 3 years in operating computer hardware similar to that used by the AUCD. The ability to work under strict time deadlines in a high-pressure environment is needed. The individual must also be able to make decisions and react quickly to ensure the integrity and continuity of the clearing depository's operation.

Educational Requirement

To be completed by AUCD management

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APPROVALS

**ALL UKRAINE CLEARING DEPOSITORY
JOB DESCRIPTION**

Title Computer System Job Scheduler

Basic Purpose To schedule the daily operation of the AUCD computer system program jobs

Principal Responsibilities

- 1 Schedules the running of the system jobs at the beginning of each business day Requires use of a scheduling package as provided by the software vendor Dynamically alters or adjusts the schedule to satisfy business or technical needs
- 2 Insures the physical security of the computer area Immediately reports any identified breaks in security to senior management
- 3 Works with the Computer Operator, the Communications area, and other business areas to coordinate and perform acceptance tests for the final clearance of system programs prior to the installation of production versions
- 4 Assists the disaster recovery manager in the implementation of business continuation policies as they relate to the job scheduling of computer operations This includes assisting in setting up offsite computer facilities and insuring that operations can quickly be recovered at those facilities
- 5 Documents various aspects of the job scheduling functions, including the timeliness of system operations, all problems encountered, and their resolutions Makes periodic reports to management on same

General Information

Incumbent should have a minimum of 3 years in the area of computer system program scheduling in a computer environment similar that of the UAAUCD The ability to work under strict time deadlines in a high-pressure environment is needed The individual must also be able to make decisions and react quickly to insure the integrity and continuity of the clearing depository's operation

Educational Requirement

To be completed by the AUCD management

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APPROVALS

ALL UKRAINE CLEARING DEPOSITORY JOB DESCRIPTION

Title Salesman

Basic Purpose To identify prospective participants of the AUCD and sell clearing depository services to same Includes maintaining ongoing relationships with active participants who are the customers of AUCD

Principal Responsibilities

1 Identifies prospective participants of the clearing depository These include financial organizations such as banks, broker, custodians, and other financial institutions Calls upon prospects to sell them clearing depository services Seeks advice and assistance from all business areas of AUCD to provide information and demonstrate the clearing depository's capabilities to potential customers

2 Works with participant applicants, the AUCD Membership Department, and Surveillance to process application forms and agreements between the clearing depository and its participants Assists potential participants in providing additional information or correct situations that inhibit final participation approval

3 Identifies training needs of new and active participants Works with the AUCD Training Department to develop general workshops and individualized training programs on existing and new services

4 Identifies the need for changes to existing services and the need for new services through ongoing contact with active participants Works with all business and technical areas of AUCD to develop such changes and services and deliver the products to its customers

5 Documents all calls on prospective and active participants and the results of those calls Makes periodic reports to management on same

General Information

Incumbent should have a minimum of 2 years in the area of sales and/or marketing Excellent communications, inter-personal, and negotiating skills are needed Travel is required An understanding of the securities industry is extremely helpful in relating clearing depository services to potential and active participants

Educational Requirement

Recommendations on Organizational Structure, Workflows and Job Descriptions for the All Ukraine Clearing Depository (AUCD)

To be completed by the AUCD management

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APPROVALS

ALL UKRAINE CLEARING DEPOSITORY JOB DESCRIPTION

Title Training Specialist

Basic Purpose To train new and active participants, registrars, clearing corporations, and internal clearing depository staff in the services of the clearing depository and the proper use of those services. Includes identification of the need for workshops and specialized training and developing same, as well as the development and production of user and training manuals and materials.

Principal Responsibilities

- 1 Identifies training needs of internal and external users of the clearing depository system. Such users include participants, registrars, clearing corporations, and AUCD business and technical staff. Training needs are determined through interviews with system users, feedback from business and technical areas that interact with users, and through management direction.
- 2 Develops and conducts training programs to meet identified training needs. This includes local and regional training workshops on existing and new services and changes to existing services. Also provides specialized training to system users at the individual level needed. Seeks advice and input from all AUCD business and technical areas in developing training programs.
- 3 Develops training and user manuals for participants, registrars, clearing corporations, and internal clearing depository users. Oversees the production of manuals, including writing, formatting, and printing. Develops other training tools as needed for workshops and specialized training programs. Seeks advice and input from all AUCD business and technical areas in developing training programs.
- 4 Develops and produces promotional and explanatory literature on new services, changes to services, clearing depository rules, and other actions taken by the clearing depository. Creates a general awareness of the benefits of the clearing depository as well as teaching use of the system.
- 5 Documents all training efforts, success of those efforts, and feedback on same. Produces periodic reports to management on training activities.

General Information

Incumbent should have a minimum of 3 years in the area of training and/or marketing. Excellent communications, inter-personal, and technical writing skills are required. Individual should have

basic leadership skills to oversee the development of training and promotional materials Travel is required An understanding of the securities industry is extremely helpful in applying clearing depository services and their benefits to training programs

Educational Requirement

To be completed by the AUCD management

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APPROVALS

ALL UKRAINE CLEARING DEPOSITORY JOB DESCRIPTION

Title Training Assistant

Basic Purpose To provide assistance to the Training Specialist in the preparation of training materials and coordinating training sessions

Principal Responsibilities

- 1 Assists in the writing and formatting of training materials This includes training manuals and workshop handouts Performs basic technical writing Obtains exhibits to be included with materials Coordinates collating narratives with exhibits Works with printers on basic layout of materials and obtaining costs
- 2 Creates slides and overhead transparencies as needed or works with outside vendors for the creation of such materials Insures all visual aids are completed within established time frame for training session
- 3 Performs basic coordination of workshops and specialized training Obtains information on facilities available Determines optimal time frames for attendees Consults with Training Specialist in finalizing location and scheduling Advises attendants accordingly
- 4 Insures all audio/visual equipment is available as necessary and in working order This includes both the equipment of the clearing depository and that of outside facilities
- 5 Assists in the development and production of promotional and explanatory literature on new services, changes to services, clearing depository rules, and other actions taken by the clearing depository This includes writing, formatting, and distribution of such materials

General Information

Incumbent should have a minimum of 1 year in the area of training and/or marketing Excellent communications, inter-personal, creativity, and technical writing skills are required Travel is required Familiarity with the production of slides and transparencies is useful An understanding of the securities industry is helpful

Educational Requirement

To be completed by the AUCD management

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APPROVALS

ALL UKRAINE CLEARING DEPOSITORY JOB DESCRIPTION

Title Membership Clerk

Basic Purpose To process applications to the clearing depository by potential participants and maintain the clearing depository system participant account database. This includes determining that applicants meet basic clearing depository eligibility requirements, insuring all application documents and agreements have been completed properly, working with AUCD's Surveillance Department to obtain final approval, and adding and updating information on participants to the system database through terminal input.

Principal Responsibilities

- 1 Performs initial processing of applications from potential participants. Insures that all documents and agreements have been completed properly. Checks that participant meets basic participation requirements through use of a checklist. Works with the Sales department to obtain additional information as needed or rectify incorrect data found in the application file.
- 2 Obtains final approval on applicants from the Surveillance Department. Secures additional information as requested by Surveillance. Notifies Sales department of those applications that are not approved for participation in the clearing depository by Surveillance.
- 3 Inputs information on participants to be added to the database of the clearing depository system via terminal access. Corrects errors in information as determined through on-line system edits. Insures that participant profiles are accepted by the clearing depository system for inclusion in the database.
- 4 Updates the participant database with changes in information and status of eligibility of participants (as directed by Surveillance). Deletes participants who have withdrawn from the clearing depository or are otherwise no longer eligible for participation.
- 5 Monitors the effective period of the licenses as issued by SSCSM to participants and the agreements between participants and the clearing depository. Contacts participants to obtain renewals of such licenses and agreements by the last effective date. Refers to management any licenses and agreements that are not properly renewed.
- 6 Maintains informational records on any agreements with participants in Membership Department files. Documents all changes to the participant profile in the clearing depository database. Insures written direction on changes to the database is secured from participants and/or

internal departments as is appropriate. Produces periodic reports to management on the number of participants and their organizational type.

General Information

Incumbent should have a minimum of 1 year in a computerized business environment where administrative functions were performed and should be skilled in data input via a computer terminal. Excellent communication skills are a requirement. The individual must also be detail-oriented, and have an ability to analyze information thoroughly and accurately.

Educational Requirement

To be completed by the AUCD management.

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APPROVALS

**ALL UKRAINE CLEARING DEPOSITORY
JOB DESCRIPTION**

Title Compliance Officer

Basic Purpose To ensure that the clearing depository is in compliance with all industry-related laws, regulations, business rules, and internal operational procedures

Principal Responsibilities

- 1 Reviews all industry-related laws and regulations, corporate business rules, and internal operating procedures for areas of compliance concerns
- 2 Establishes procedures for monitoring activities of the clearing depository to ensure compliance needs are met Monitors activities under such procedures
- 3 Reviews all internal operating procedures Advises management on where procedures don't meet compliance needs Makes recommendations on how to improve procedures
- 4 Reports to management on all breaks in areas of compliance Also reports to regulators as deemed necessary on those compliance breaks that are serious in nature Follows up with all parties to ensure corrective actions are taken Keeps management and regulators informed on such actions

General Information

Incumbent should have 1-2 years of legal experience, preferably in the securities industry Work in an auditing environment would also apply to this position

Educational Requirements

To be completed by the AUCD management

The above statements are intended to describe the general nature of work being performed by the incumbent assigned to this classification The responsibilities are not intended to be construed as an exhaustive list of all responsibilities so classified

APPROVALS

ALL UKRAINE CLEARING DEPOSITORY JOB DESCRIPTION

Title Surveillance Specialist

Basic Purpose To monitor the ongoing participant and security activity in the AUCD system, insuring that the risk is minimized and the integrity of the clearing depository is maintained. This includes providing final approval of applicants to the clearing depository for participation, monitoring the ongoing financial and operational conditions of participants and securities eligible in the clearing depository, and recommending actions to be taken against participants and securities where unusual activity occurs or eligibility standards are not met.

Principal Responsibilities

- 1 Reviews files of potential participants as received from the Membership Department. Looks for completeness and accuracy in the execution of forms and agreements. Performs an in-depth review of the financial and operational status of the applicant. Makes recommendations on the acceptance or rejection of the applicant.
- 2 Monitors clearing depository system activity as appropriate to decide if there is any excessive risk to the clearing depository and its participants. Determines impact of severely declining values of securities on proprietary shares held by participants to meet capital requirements. Takes appropriate actions against participants and securities as appropriate within realm of responsibilities, and/or makes recommendations to management on actions to be taken where there is unusual risk.
- 3 Works with industry regulators to provide and receive information on participants where financial or operational problems have been discovered. Keeps management informed on participants being monitored by regulators.
- 4 Applies formula for supplemental Settlement Fund requirements as necessary because of unusual risk. Works with participant(s) to collect such deposits.
- 5 Performs annual examinations of participants' in-house activity and financial records. Compares records to activity recorded in clearing depository accounts and reported to the clearing depository by participants.
- 6 Maintains informational records on participants and problem securities. Documents all actions taken against participants and securities. Completes a report on the annual review of participants and findings. Produces periodic reports to management concerning the financial status of participants and other surveillance issues.

General Information

Incumbent should have 3-4 years of industry experience in the area of trading and/or compliance to rules and regulations. An understanding of industry regulations and how they apply to different entities is essential. A proficiency in making decisions quickly and reacting appropriately to those decisions is mandatory. Excellent communication skills are a requirement. The individual must also be detail-oriented, be able to work in a high-pressured environment, and have an ability to analyze information thoroughly and accurately.

Educational Requirement

To be completed by the AUCD management

The above statements are intended to describe the general nature of work being performed by the incumbent assigned to this classification. The responsibilities are not intended to be construed as an exhaustive list of all responsibilities so classified.

APPROVALS

ALL UKRAINE CLEARING DEPOSITORY JOB DESCRIPTION

Title Risk Management Specialist

Basic Purpose To perform functions that minimize the risk to the clearing depository corporation as a result of participant activity and other liabilities. This includes the administration and investment of funds, acquiring insurance policies, developing and maintaining a business continuity plan, and making recommendations on how to limit exposure.

Principal Responsibilities

- 1 Administers the basic and supplemental Settlement/Guarantee Funds as established by the Board of Directors. This includes the investment of such funds under corporate policies. Maintains all documentation related to the administration of the Settlement/Guarantee Fund.
- 2 Acquires corporate insurance against negligence, theft, fraud, etc. This includes the bonding of the clearing depository employees. Administers any investor protection insurance programs as established by the clearing depository (self-insurance).
- 3 Responsible for performing audits at the participant level. Distributes audit packages to all participants on a periodic basis to confirm that participants agree with their account holdings. Also distributes audit packages on a random or all basis to beneficial holders to ensure participant statements of account to their clients are produced properly and accurately reflect those shares on deposit at AUCD.
- 4 Develops and maintains a business continuity/disaster recovery plan for the business areas of the clearing depository. Acquires an offsite facility in the event that the current offices are not available under a disaster. Insures that all supplies, equipment, and telephones will be available at the disaster recovery site. Coordinates the plan for the business areas with that of the Information Technology area.
- 5 Investigates new methods to contain risk to the clearing depository where controls are weak or risk cannot be avoided. Makes recommendations to management on the implementation or acquisition of such methods. Implements new risk management procedures as appropriate within realm of responsibility and as directed by UAAUCD management.
- 6 Performs an annual review of risk and related controls. Reports to senior management on levels of risk that have developed within the clearing depository and how those risks are minimized. Recommends any new controls that need to be put into place.

General Information

Incumbent should have 3-4 years of experience in the area of financial services that included both investments and insurance plans. The individual must be able to analyze the risk associated with operating the clearing depository. Excellent communication and negotiation skills are a requirement.

Educational Requirement

To be completed by the AUCD management

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APPROVALS

**ALL UKRAINE CLEARING DEPOSITORY
JOB DESCRIPTION**

Title Lawyer

Basic Purpose To provide legal support to all clearing depository activities, necessary legal opinions on day-to-day activities, writing of clearing depository rules, and the application of rules and industry regulations to clearing depository participation and processing

Principal Responsibilities

- 1 Drafts clearing depository rules relating to participation requirements, securities eligibility, and clearing depository services Works with business managers to insure feasibility of rules as structured Seeks approval from AUCD's Board of Directors and then industry regulators Determines if new services or changes to existing services require updates to rules and proceeds to draft updates as appropriate
- 2 Applies clearing depository rules and regulations to actions taken or proposed by the clearing depository Decides if issues simply need business decisions or have legal implications Provides a legal opinion where legal implications are involved
- 3 Drafts agreements between the clearing depository and its participants Also drafts tri-party agreements between the clearing depository, issuer, and its registrar agent Assists business management in negotiations where standard agreements must be customized
- 4 Works with the Surveillance department of the clearing depository and regulators in the monitoring of participants and any resulting actions taken Represents the clearing depository in arbitration and litigation proceedings related to such actions
- 5 Assists all business areas of the clearing depository in legal matters related to the day-to-day business operations Maintains documentation on all legal matters and actions

General Information

Incumbent should have 4-5 years of legal experience in the securities industry An understanding of industry regulations is a requirement

Educational Requirement

To be completed by the AUCD management

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APPROVALS

**ALL UKRAINE CLEARING DEPOSITORY
JOB DESCRIPTION**

Title Internal Auditor

Basic Purpose To perform audit reviews on various business and technical (EDP) departments of the AUCD, with reports made to management and the Supervisory Board on the findings of such reviews

Principal Responsibilities

- 1 Prepares an annual plan for periodic reviews of both the business and technical departments of the AUCD. Submits the plan to senior management for approval. Proceeds with the plan as directed upon approval.
- 2 Performs scheduled periodic reviews of each of the business and technical departments of the AUCD. These include the business and technical functions of the clearing depository as well as support services. Validates, through these reviews, that internal procedures and policies are being followed and that industry and corporate standards are being met. Coordinates completion of the review with departmental management.
- 3 Performs special audits as requested by management where there is a perceived or actual operational problem, or to determine the effectiveness of new control procedures.
- 4 Issues reports to management after each review. Includes in such reports the findings of the review as well as any recommendations on internal procedure changes or the addition of new procedures. Follows-up with management on the implementation of accepted recommendations, and includes the changes in future audits.
- 5 Assists external auditors and regulators in their periodic examinations of the clearing depository. This includes collecting basic data and coordinating audits with internal departments. The Internal Auditor also monitors the work of external examiners to insure that requests are reasonable and that deadlines to complete the work are met.
- 6 Reports directly to the Supervisory Board where extremely serious or unusual problems are found through the periodic examinations. Investigates situations at the request of the Board.

General Information

Incumbent should have 4-5 years of auditing experience to meet the requirements of this more senior position. The individual must be well organized and systematic in his/her work, and be extremely detail-oriented. Experience in auditing EDP systems is also required. An understanding of the securities industry, related banking procedures, and

industry regulations is a helpful in completion the audits of the business areas of the clearing depository

Educational Requirement

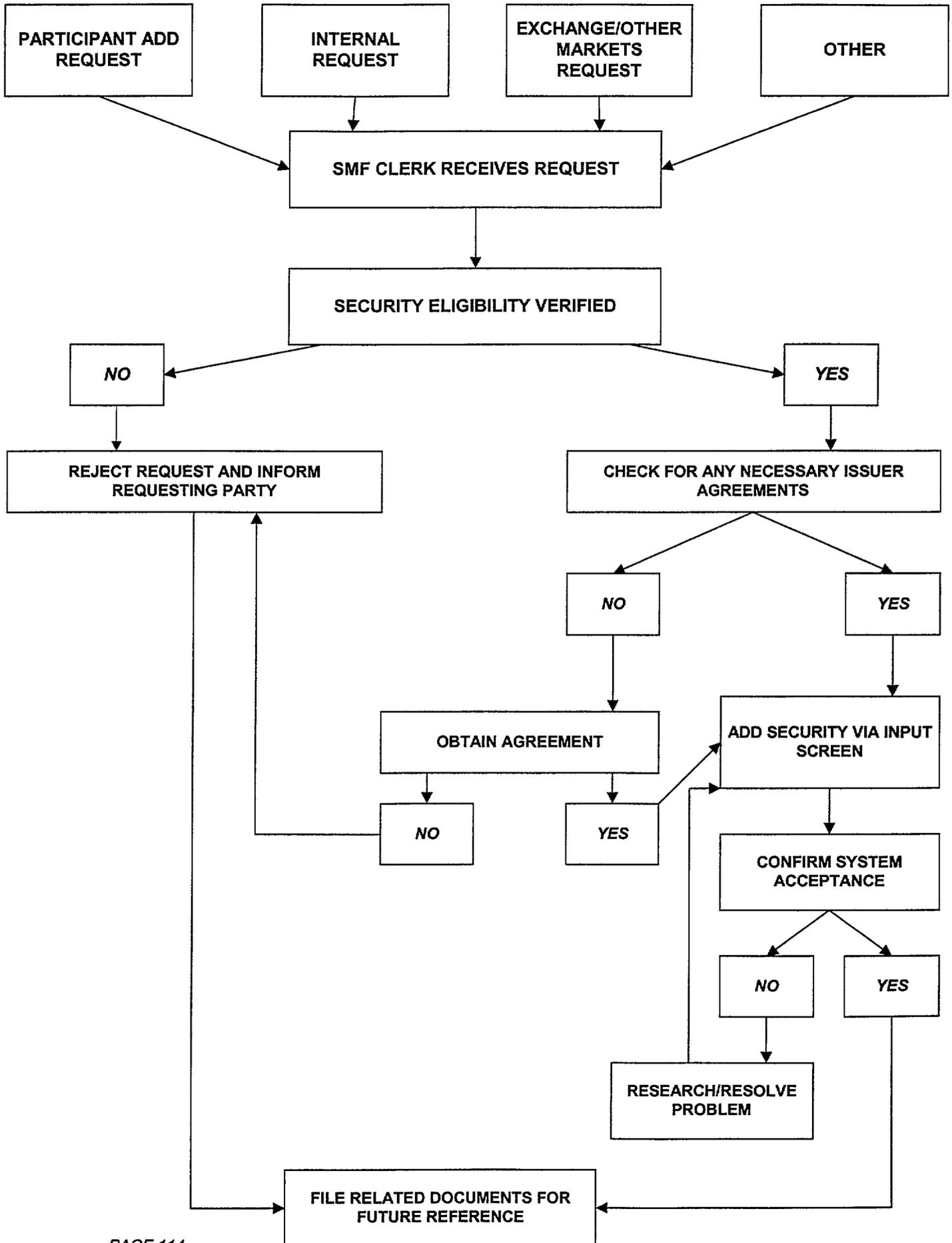
To be completed by the AUCD management

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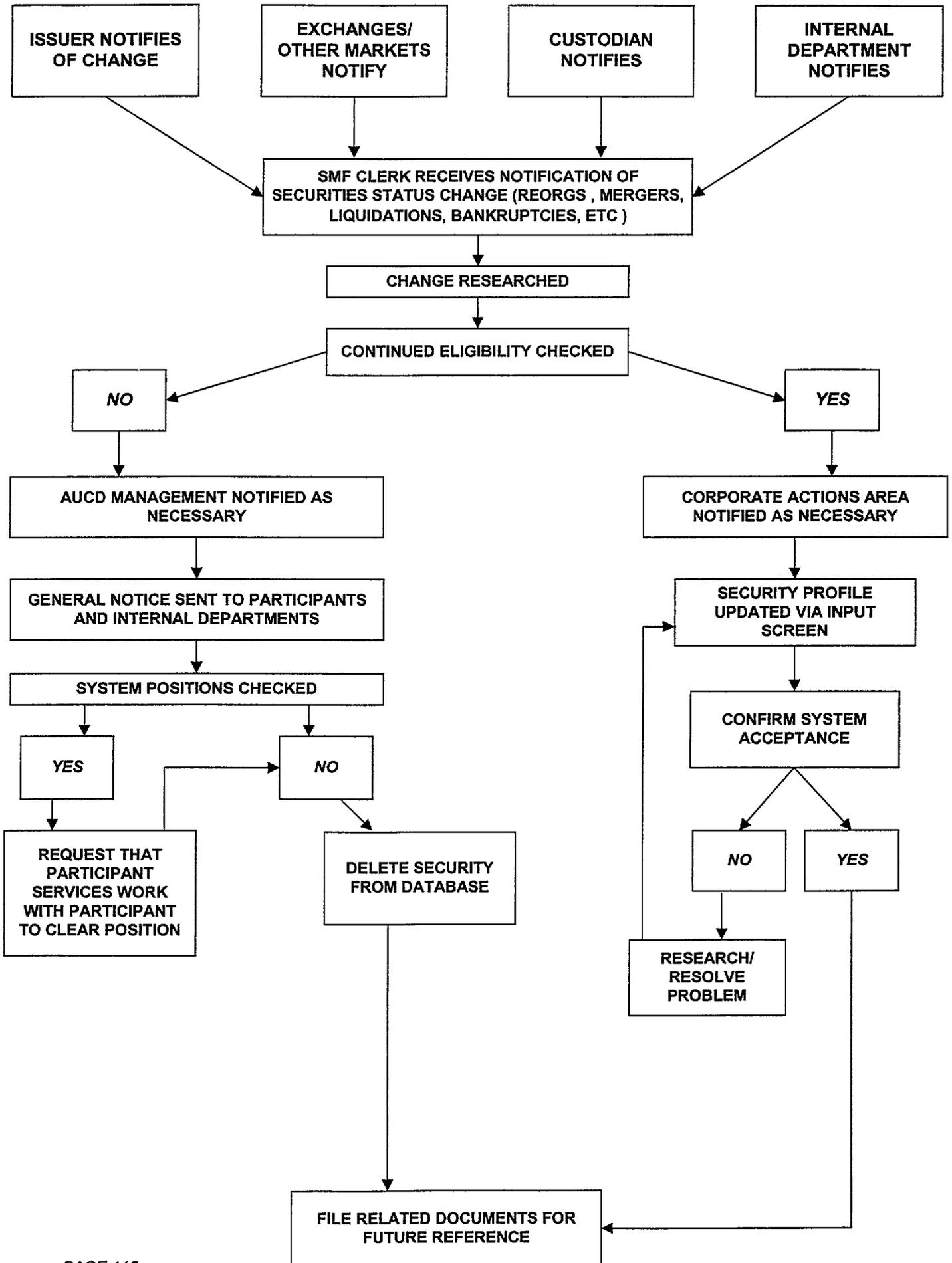
APPROVALS

APPENDIX B - DEPARTMENTAL FLOWCHARTS

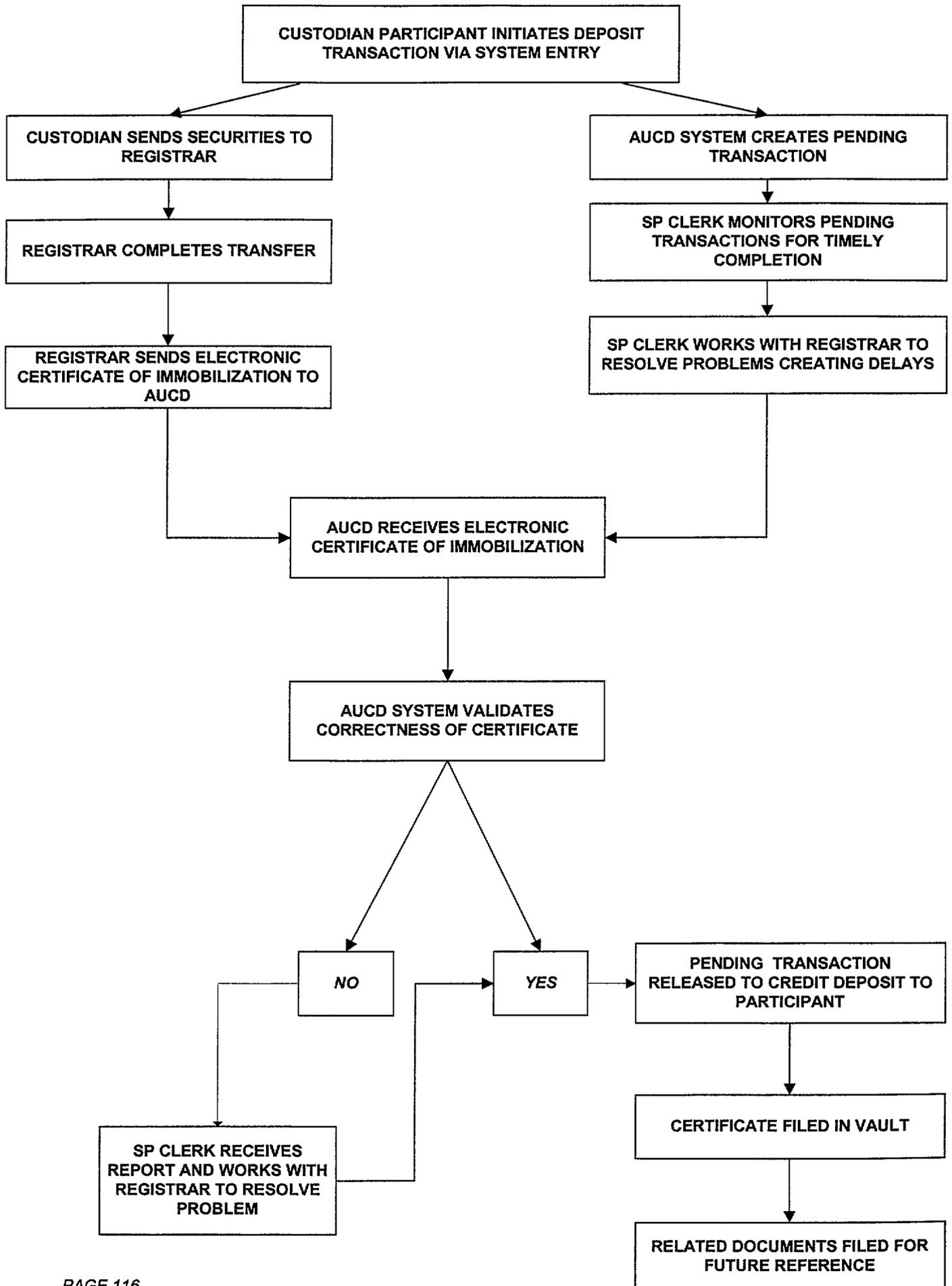
ALL UKRAINIAN CLEARING DEPOSITORY (AUCD)
 SECURITY MASTERFILE (SMF) FLOWCHART
 ADD SECURITY TO DATABASE



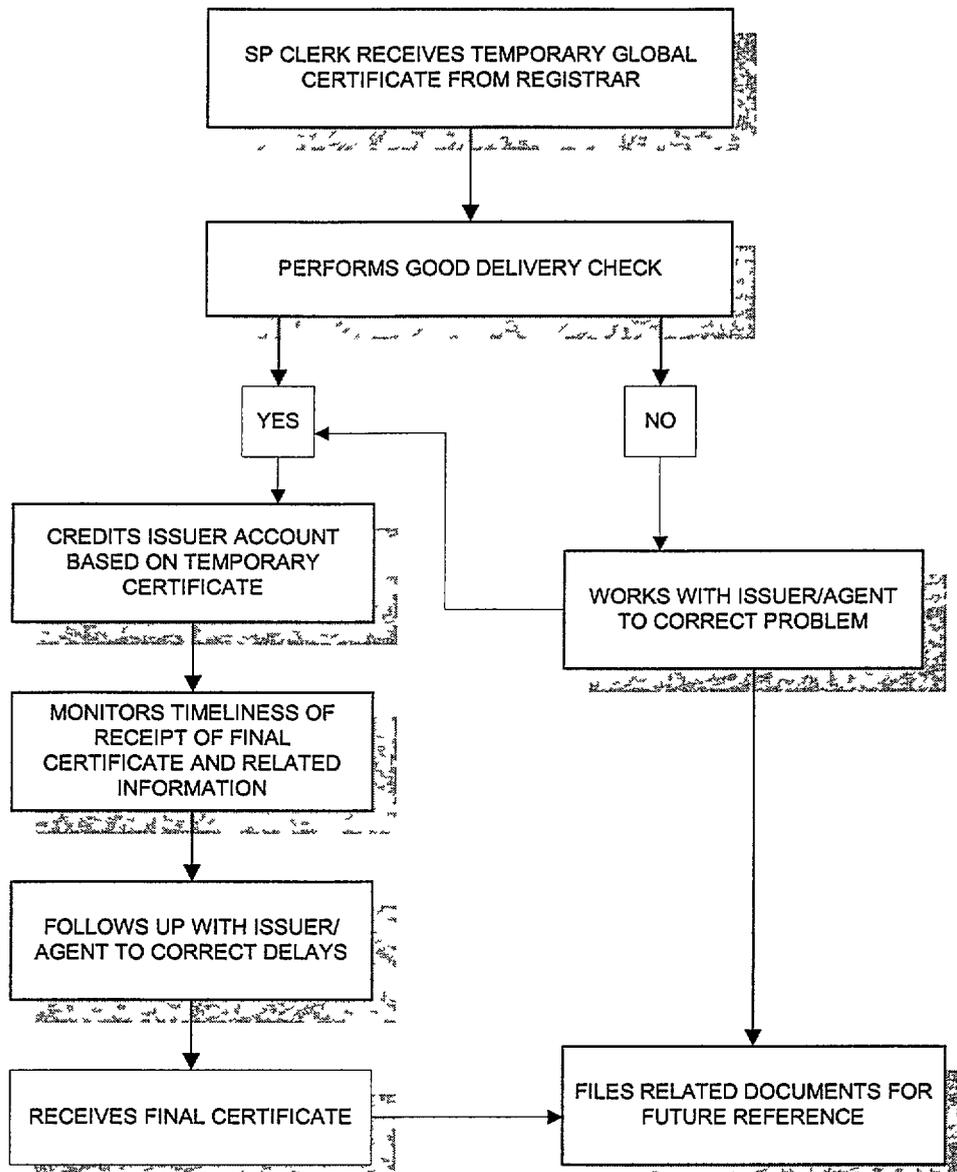
**ALL UKRAINIAN CLEARING DEPOSITORY (AUCD)
SECURITY MASTERFILE (SMF) FLOWCHART
UPDATE SECURITY DATABASE**



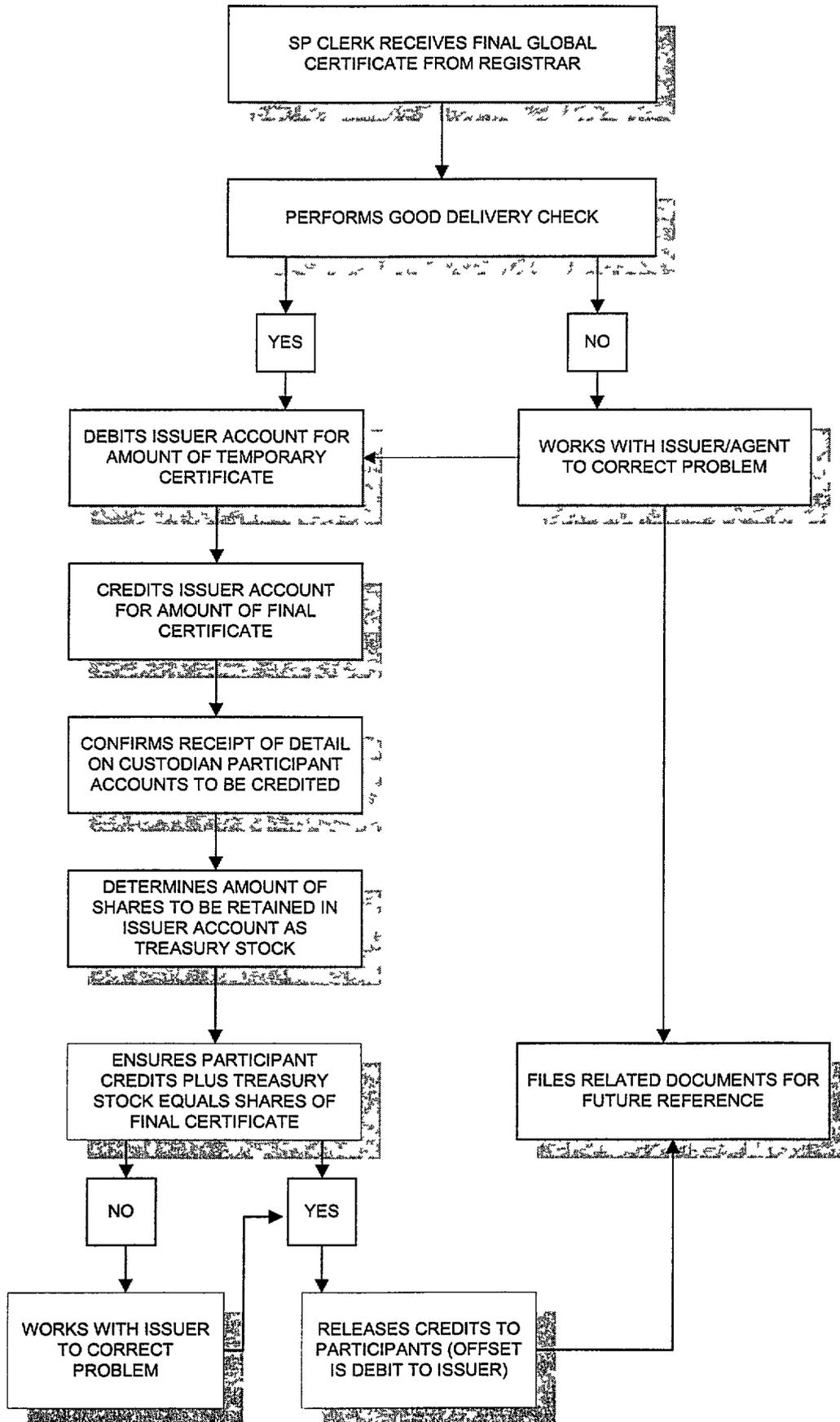
**ALL UKRAINIAN CLEARING DEPOSITORY (AUCD)
SECURITIES PROCESSING (SP) FLOWCHART
DEPOSIT - CERTIFICATED REGISTERED SECURITIES**



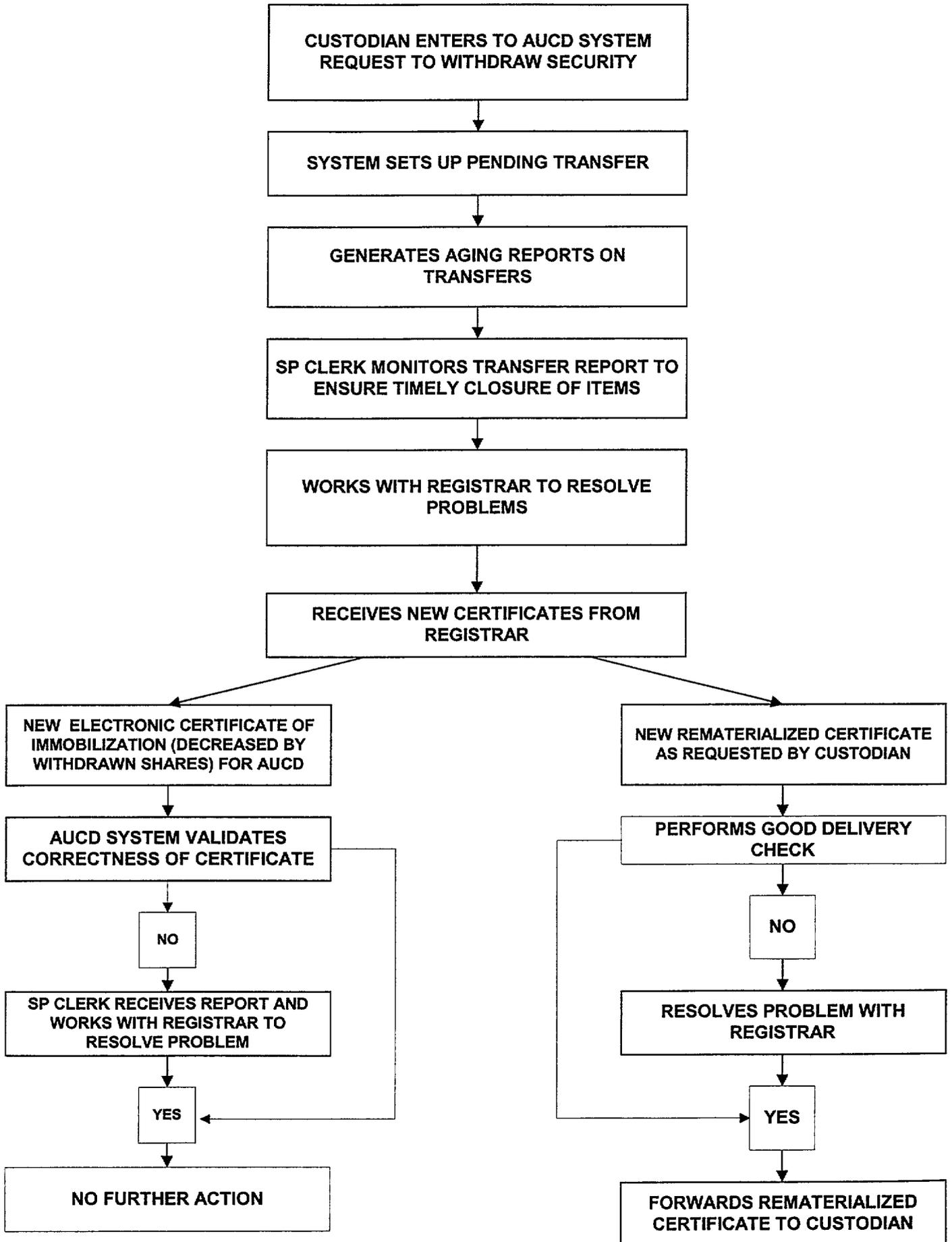
**ALL UKRAINE CLEARING DEPOSITORY (AUCD)
SECURITIES PROCESSING (SP) FLOWCHART DEPOSIT -
TEMPORARY DEMATERIALIZED CERTIFICATE**



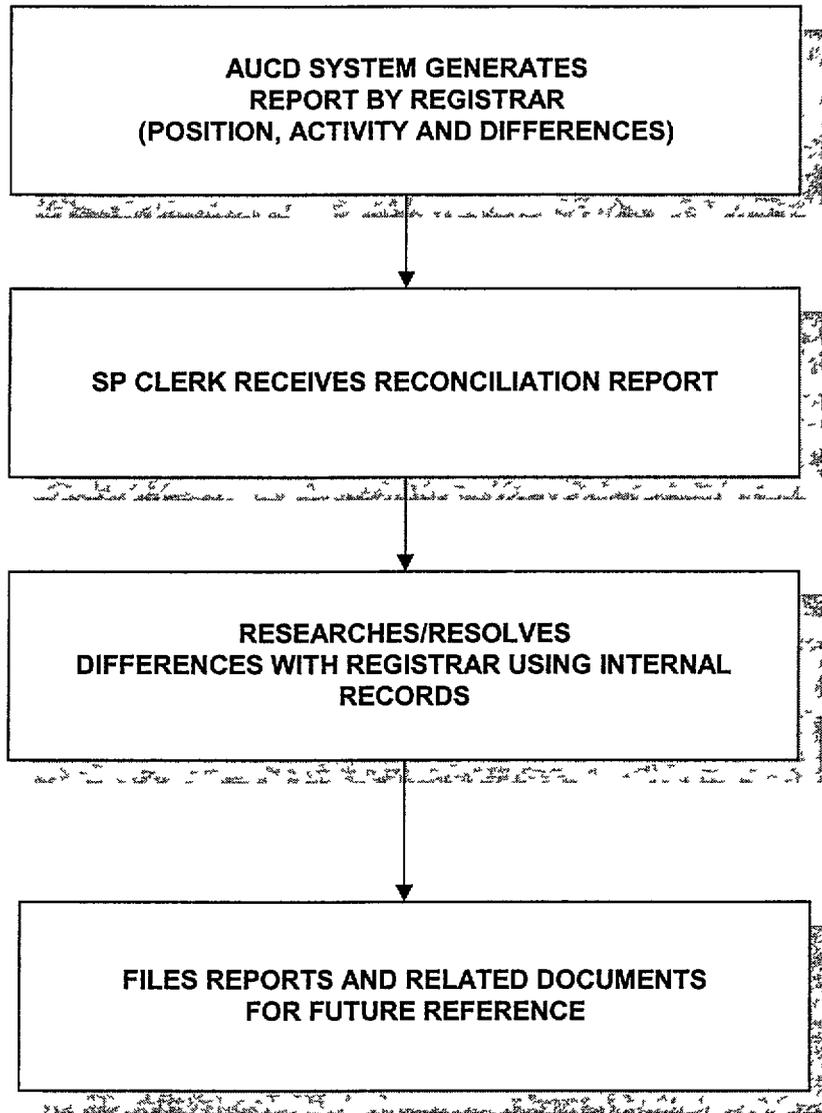
**ALL UKRAINE CLEARING DEPOSITORY (AUCD)
SECURITIES PROCESSING (SP) FLOWCHART DEPOSIT -
FINAL DEMATERIALIZED CERTIFICATE**



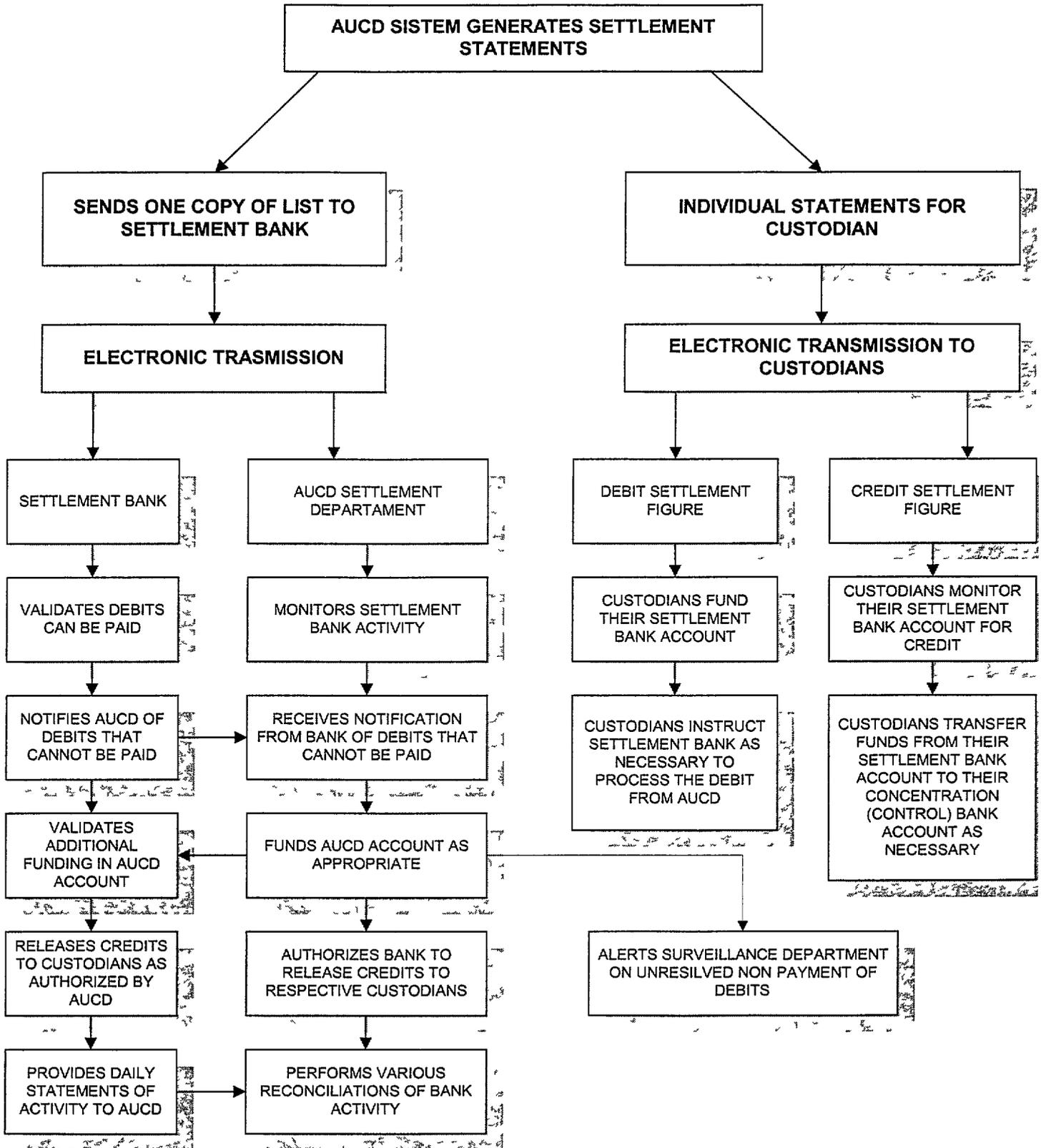
ALL UKRAINIAN CLEARING DEPOSITORY (AUCD)
SECURITIES PROCESSING (SP) FLOWCHART
WITHDRAWAL - IMMOBILIZED SECURITY



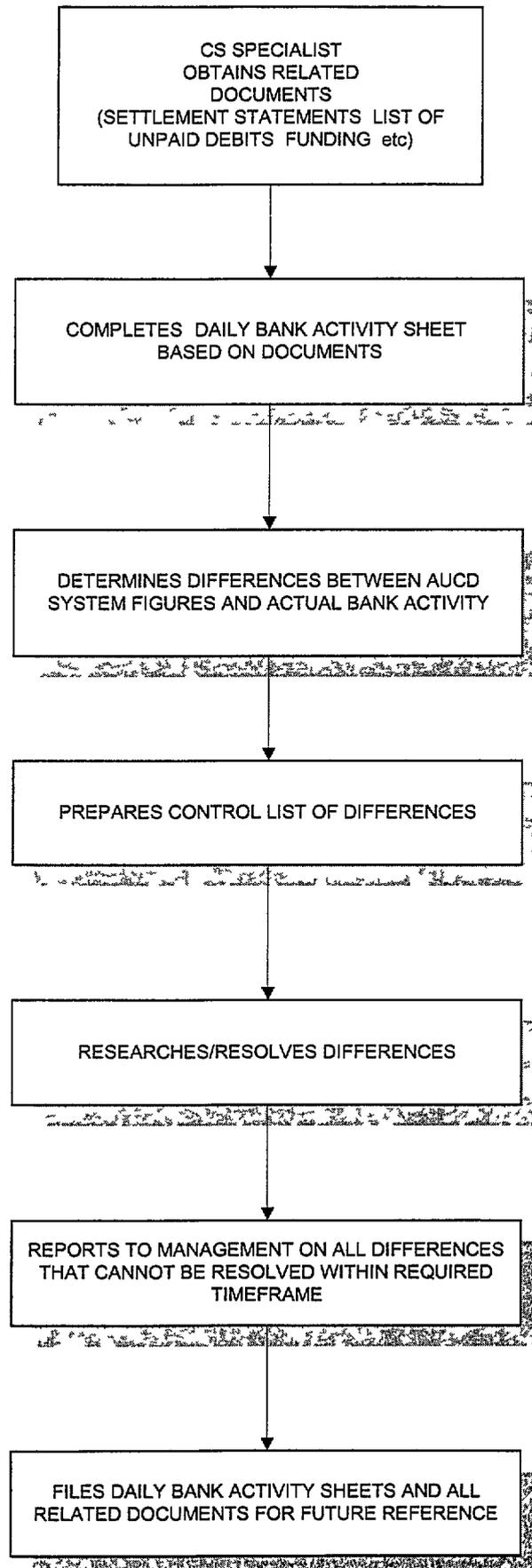
**ALL UKRAINIAN CLEARING DEPOSITORY (AUCD)
SECURITIES PROCESSING (SP) FLOWCHART
RECONCILIATION WITH REGISTRARS**



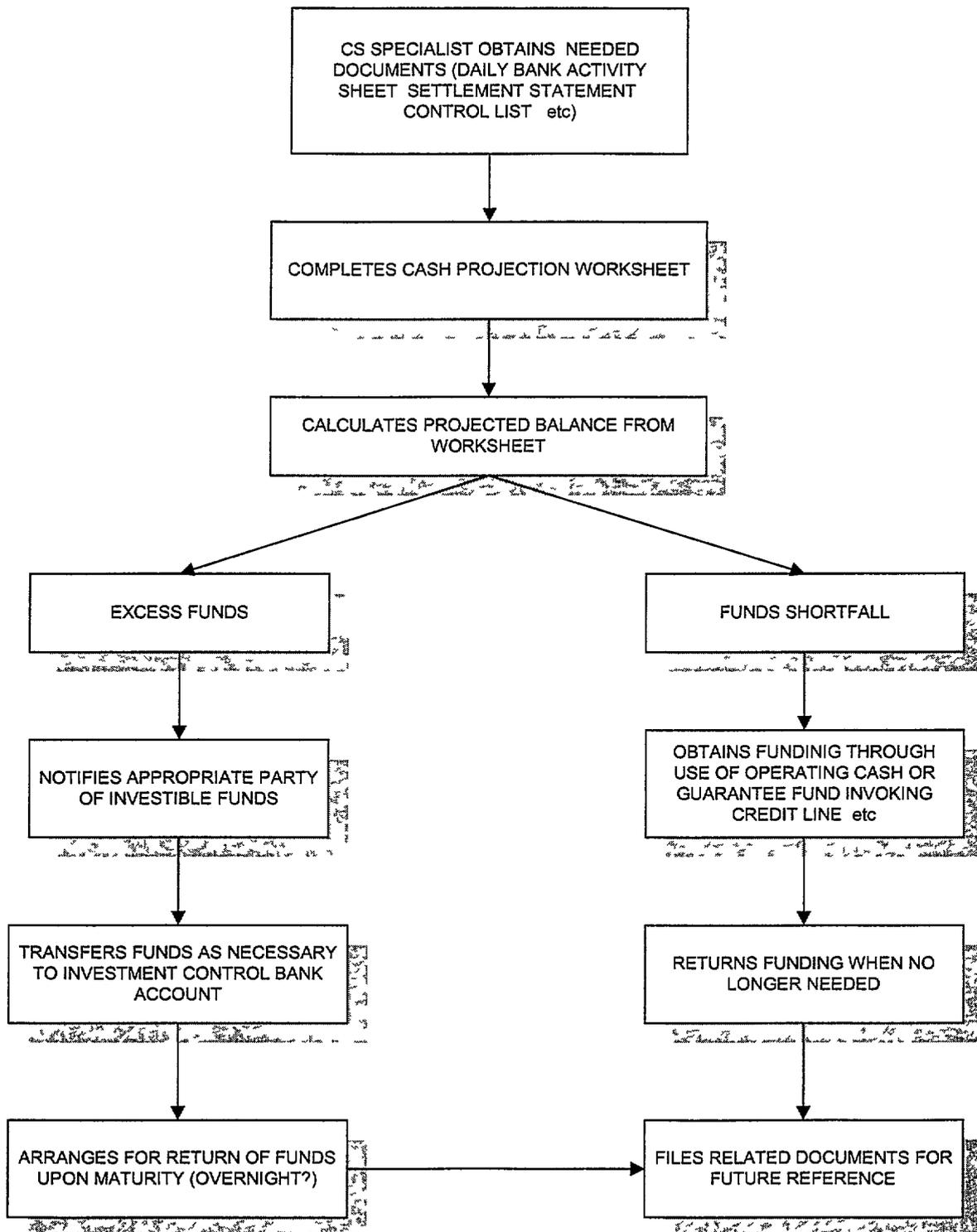
**ALL UKRAINE CLEARING DEPOSITORY (AUCD)
CASH SETTLEMENT - CONTRACTUAL SETTLEMENT**



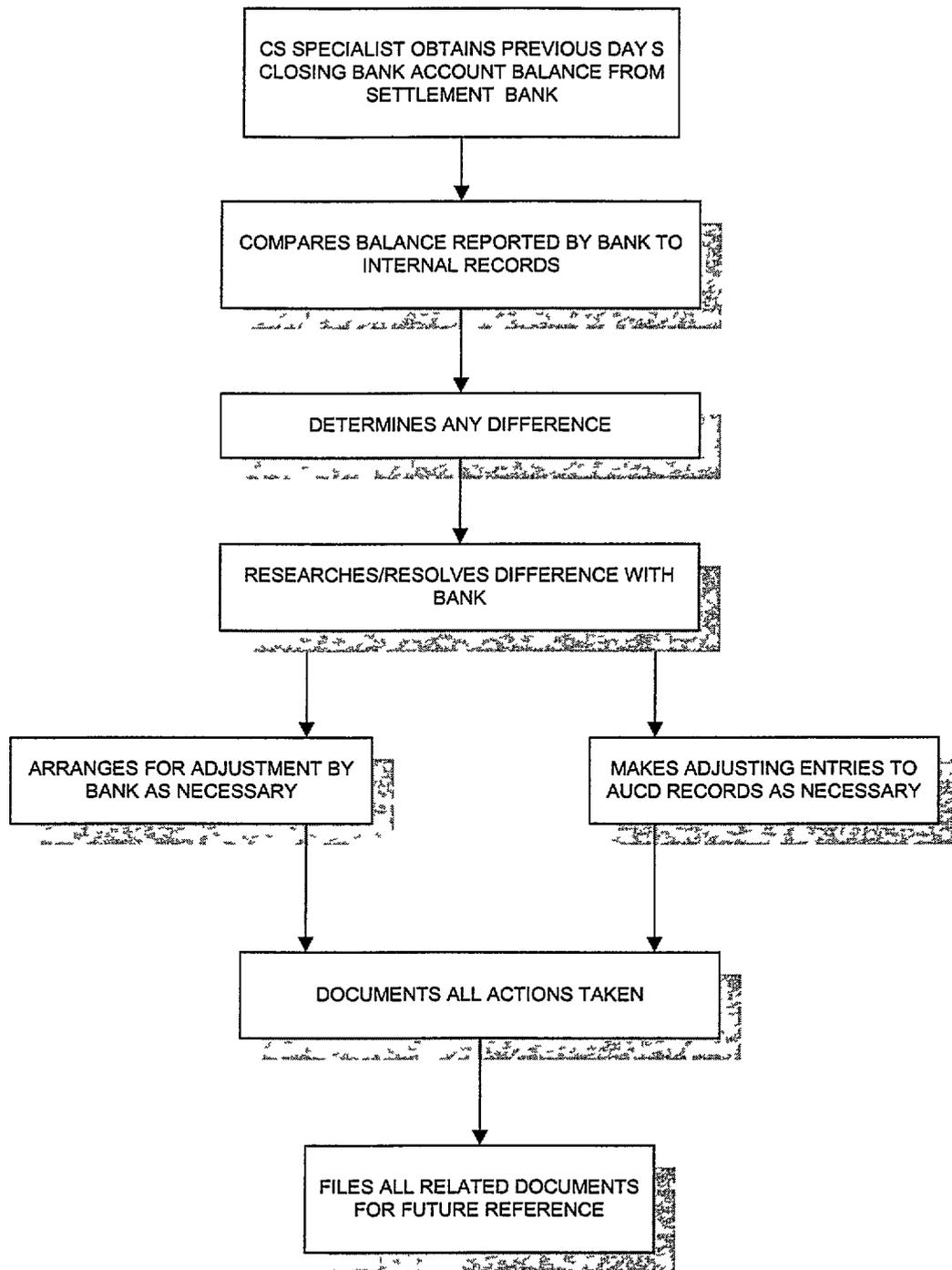
**ALL UKRAINE CLEARING DEPOSITORY (AUCD)
CASH SETTLEMENT - DAILY BALANCING**



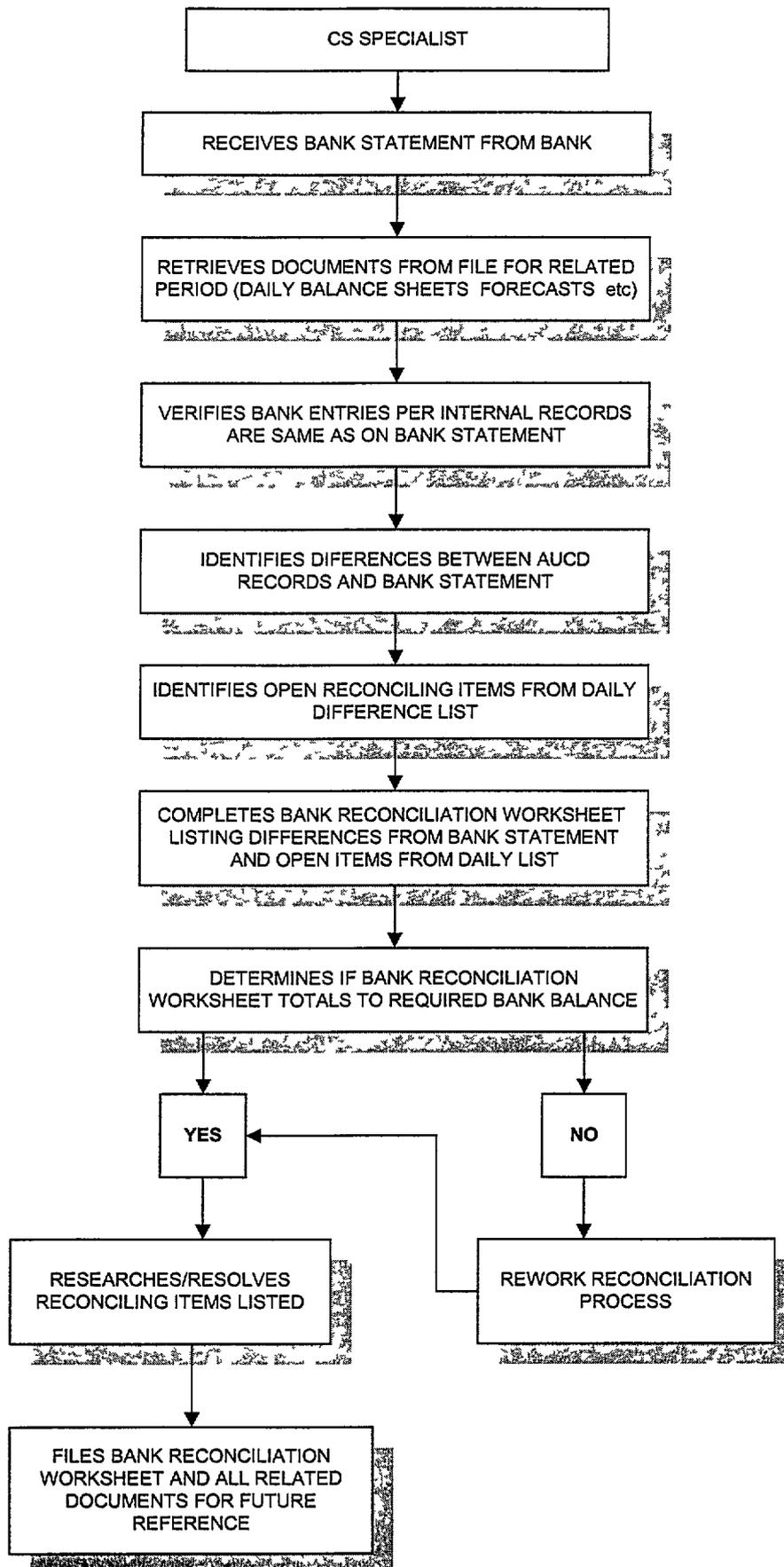
ALL UKRAINE CLEARING DEPOSITORY (AUCD) CASH SETTLEMENT (CS) - PROJECT BANK BALANCE



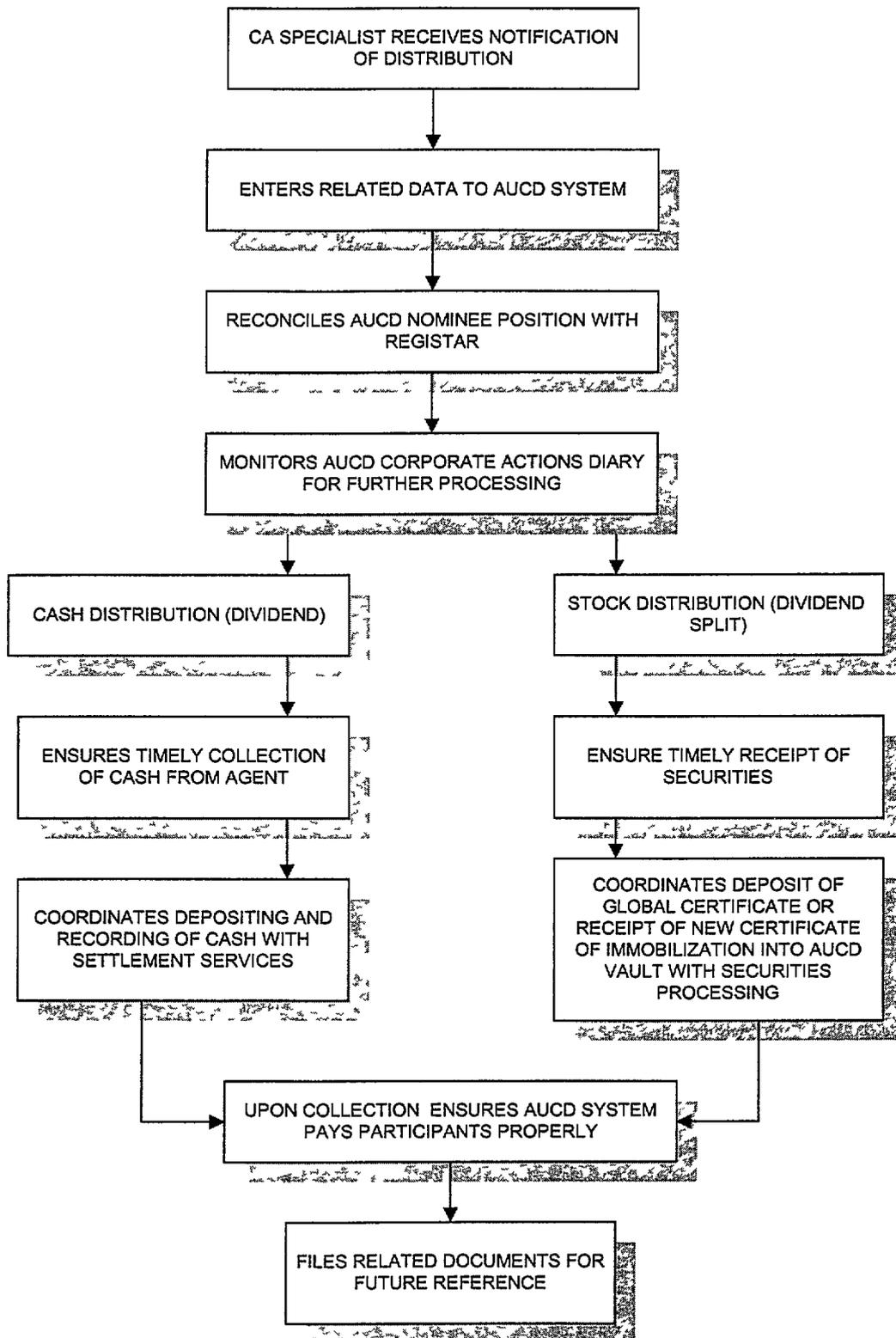
**ALL UKRAINE CLEARING DEPOSITORY (AUCD)
CASH SETTLEMENT (CS) - BANK BALANCE VERIFICATION**



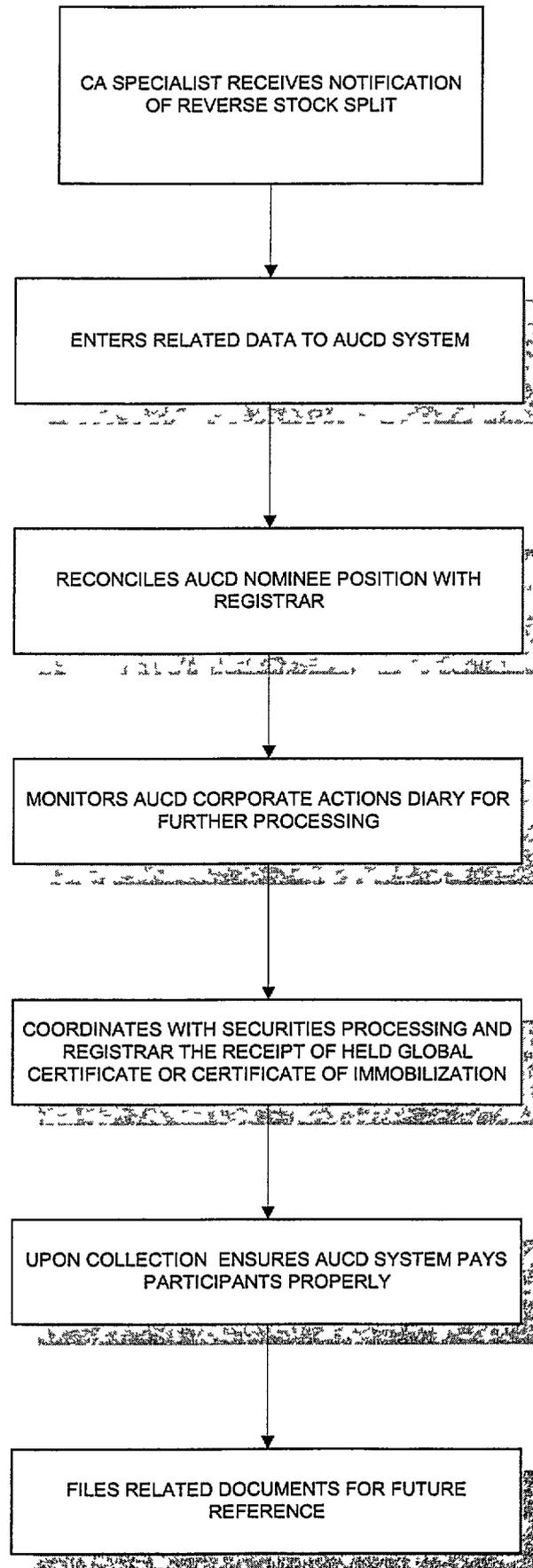
**ALL UKRAINE CLEARING DEPOSITORY (AUCD)
CASH SETTLEMENT - BANK STATEMENT RECONCILIATION**



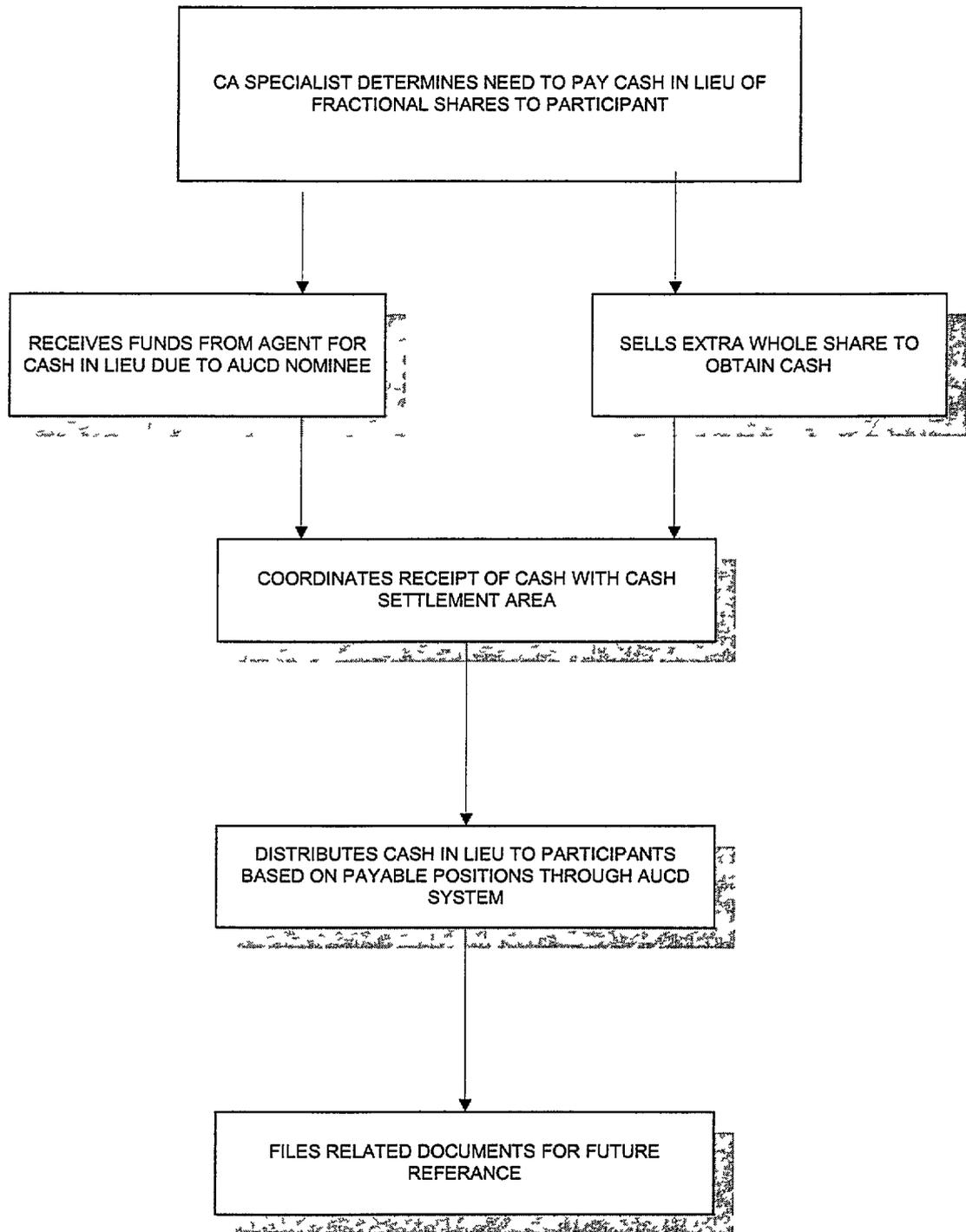
**ALL UKRAINE CLEARING DEPOSITORY (AUCD)
CORPORATE ACTIONS (CA) - PROCESSING DISTRIBUTION**



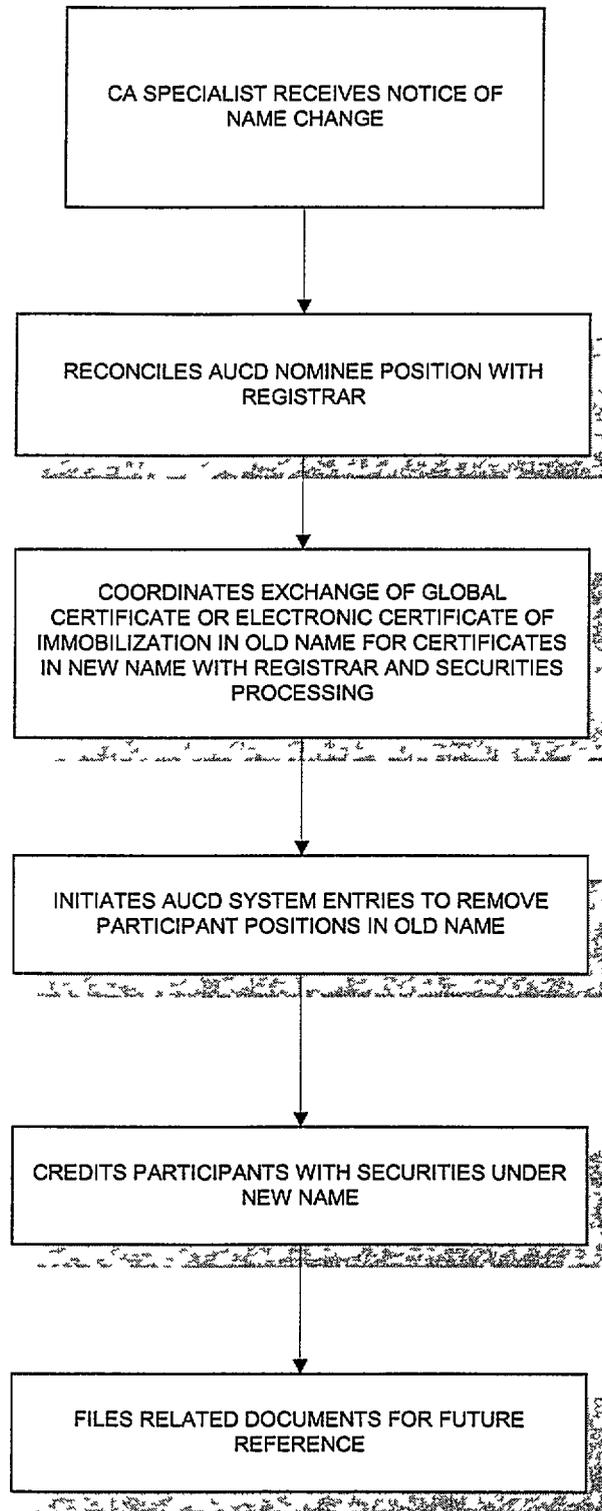
**ALL UKRAINE CLEARING DEPOSITORY (AUCD)
CORPORATE ACTIONS (CA) - REVERSE STOCK SPLITS**



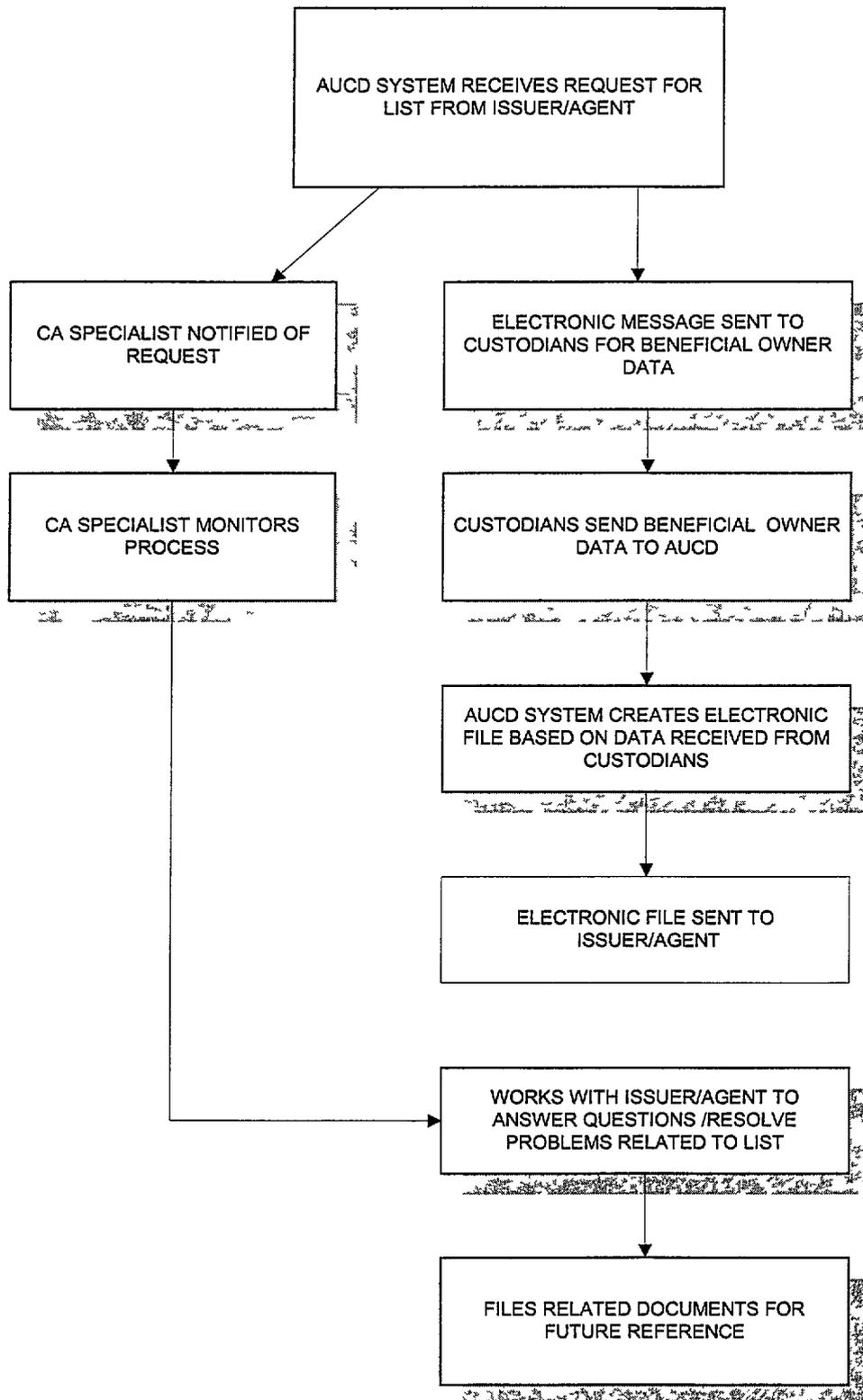
**ALL UKRAINE CLEARING DEPOSITORY (AUCD)
CORPORATE ACTIONS (CA) - CASH-IN-LIEU OF FRACTIONAL SHARES**



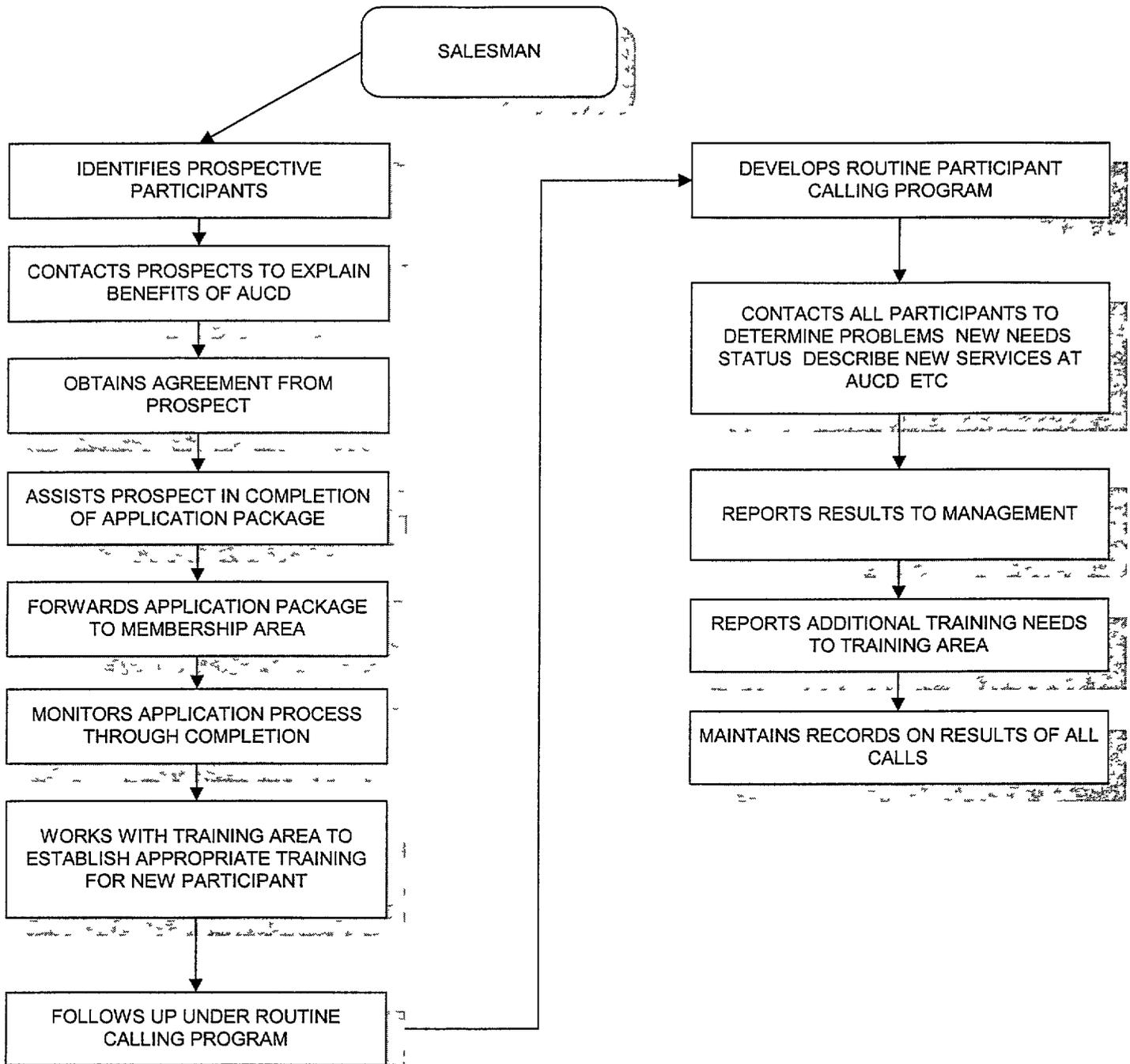
**ALL UKRAINE CLEARING DEPOSITORY (AUCD)
CORPORATE ACTIONS (CA) - NAME CHANGE**



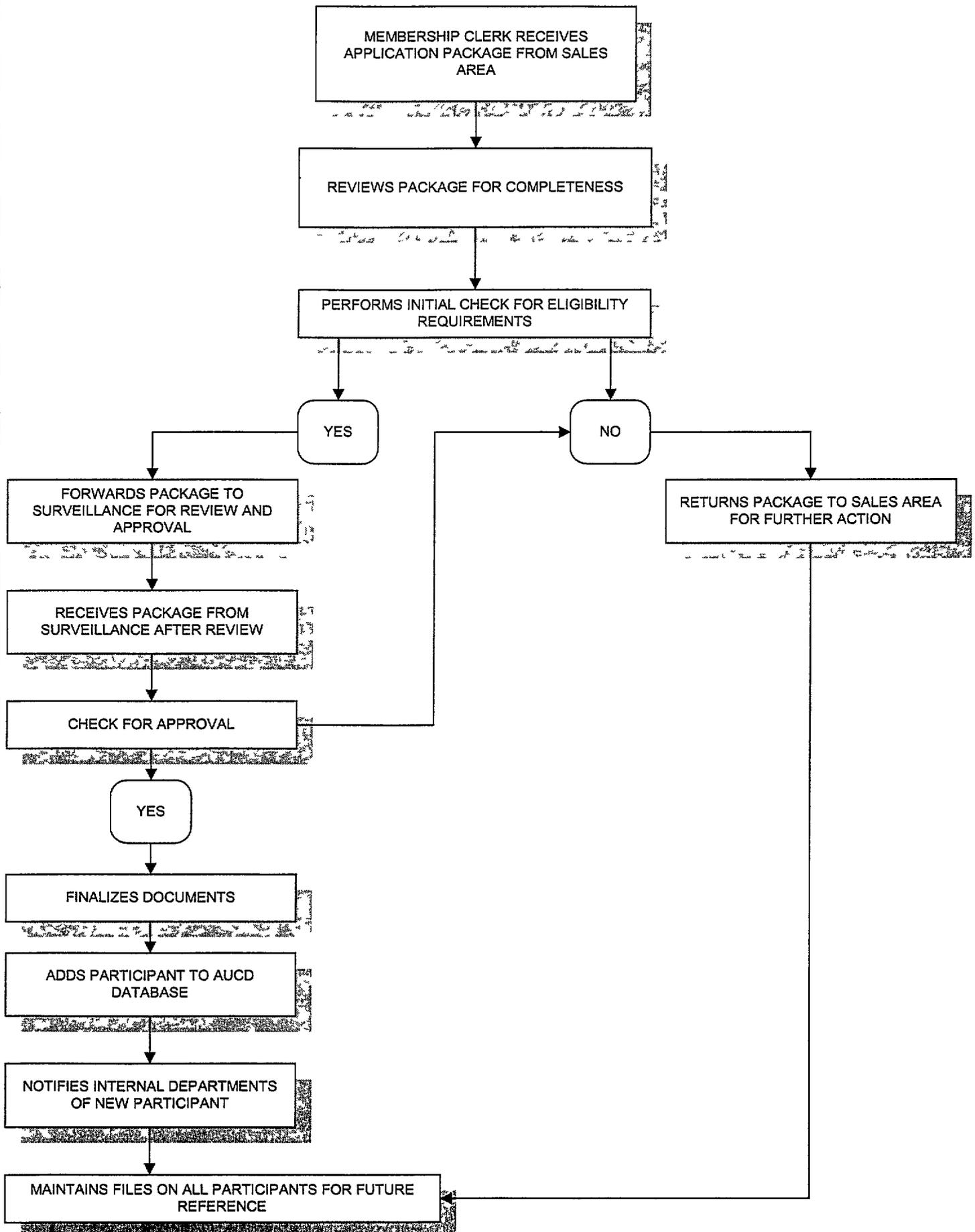
**ALL UKRAINE CLEARING DEPOSITORY (AUCD)
CORPORATE ACTIONS (CA) - BENEFICIAL OWNER LIST**



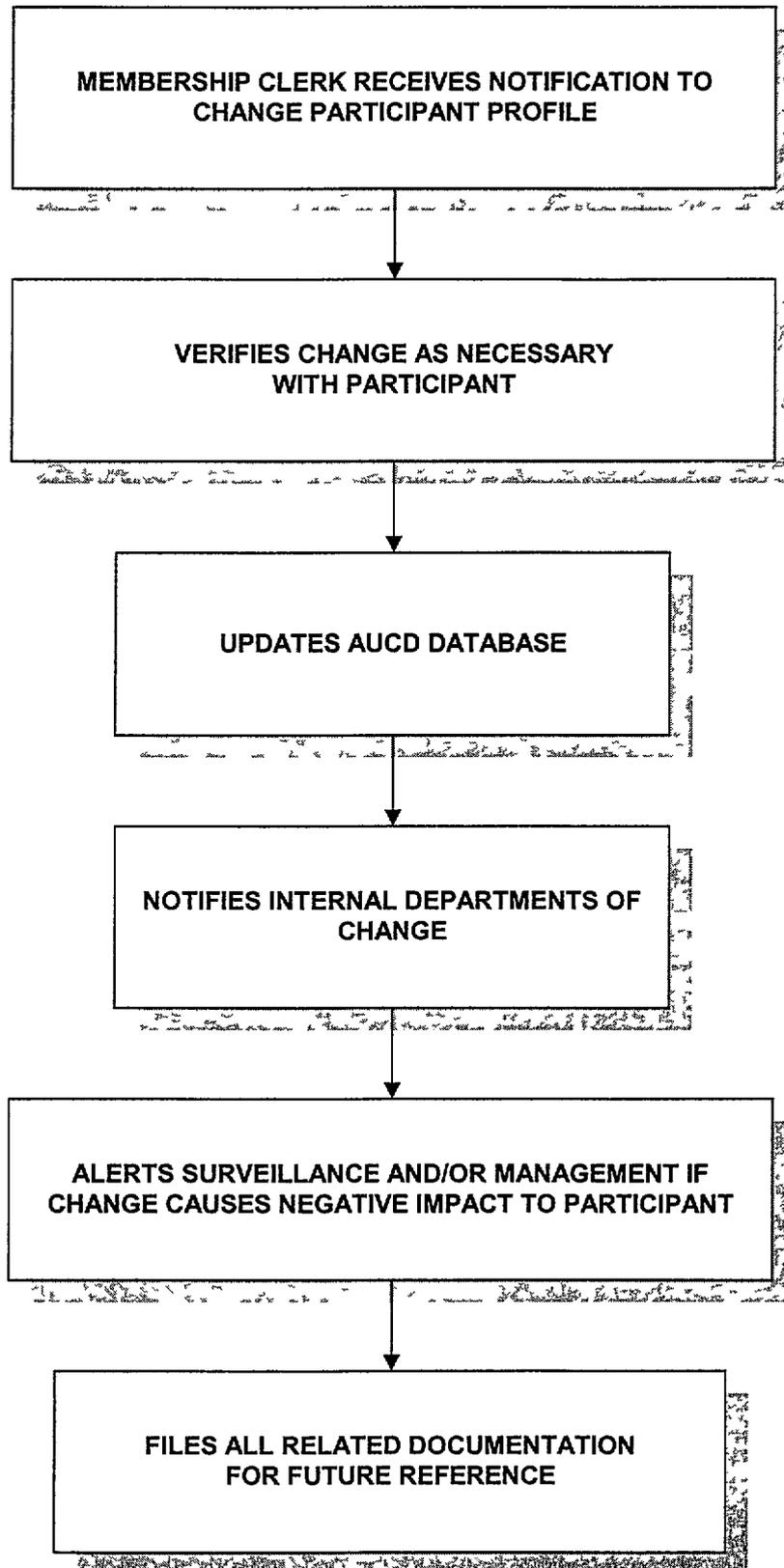
ALL UKRAINIAN CLEARING DEPOSITORY (AUCD) SALES



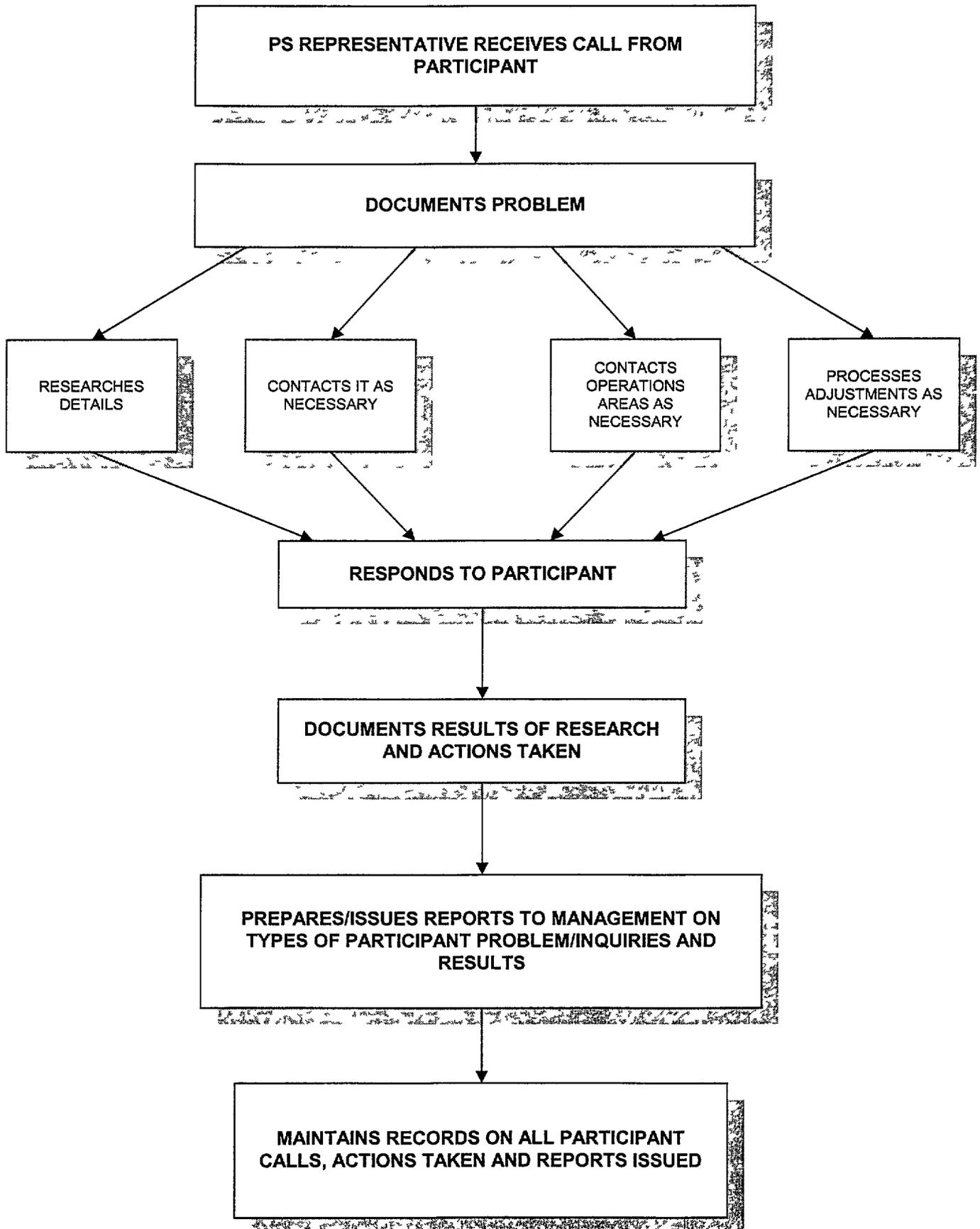
**ALL UKRAINE CLEARING DEPOSITORY (AUCD)
MEMBERSHIP - APPLICATION PROCESS**



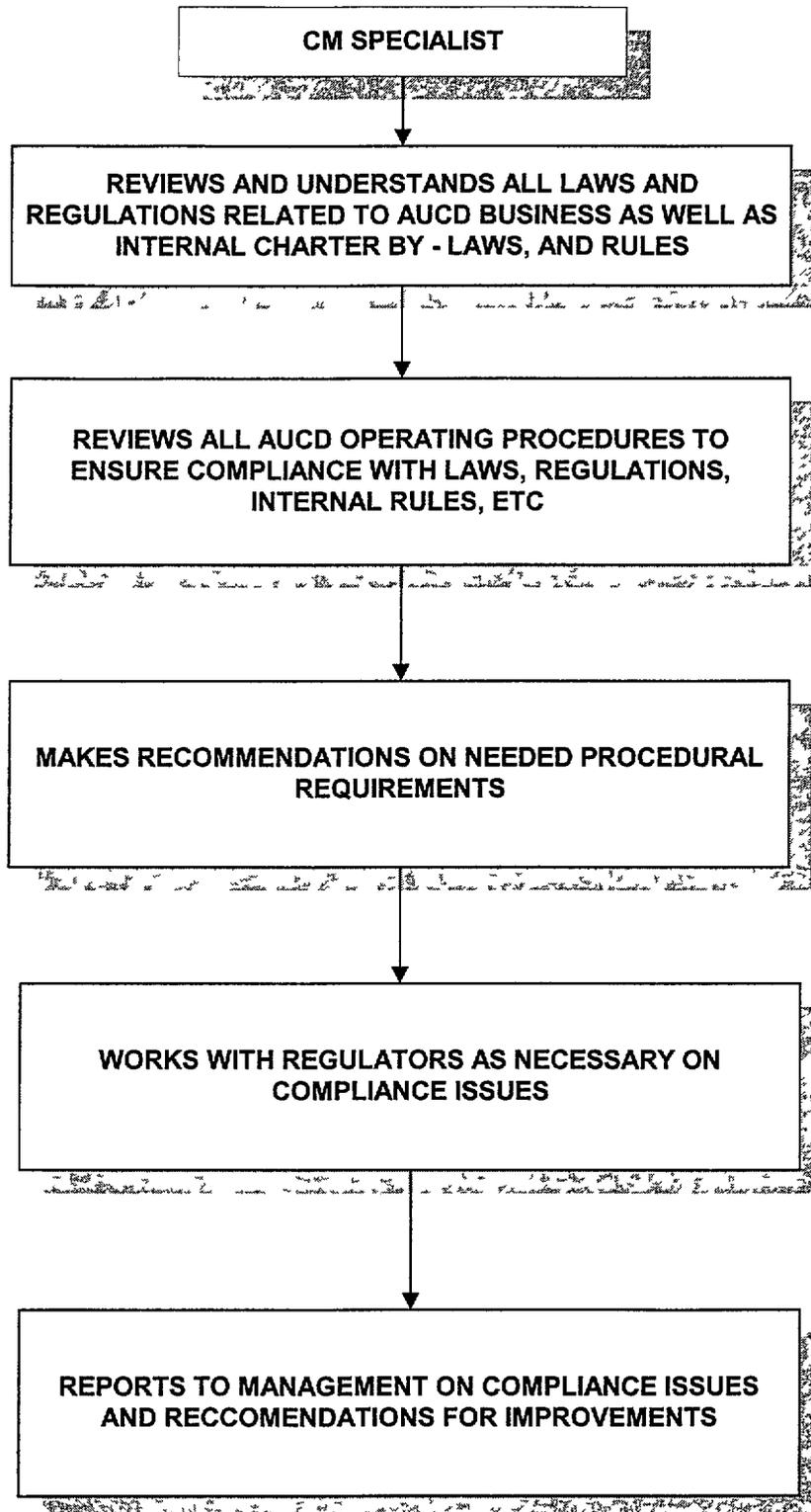
**ALL UKRAINIAN CLEARING DEPOSITORY (AUCD)
MEMBERSHIP - UPDATES TO PARTICIPANT DATABASE**



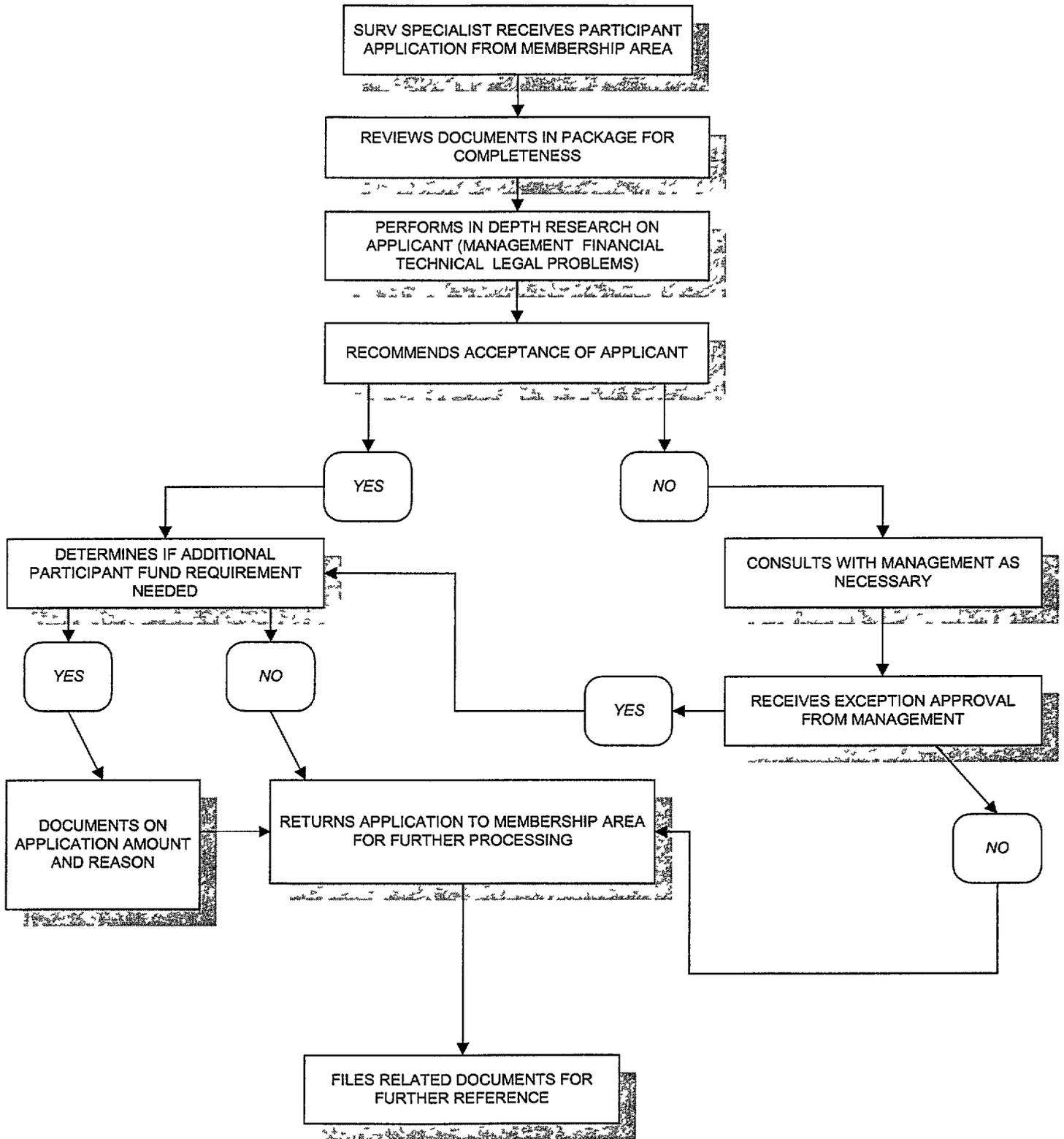
**ALL UKRAINIAN CLEARING DEPOSITORY (AUCD)
PARTICIPANT SERVICES (PS) - PARTICIPANT INQUIRIES**



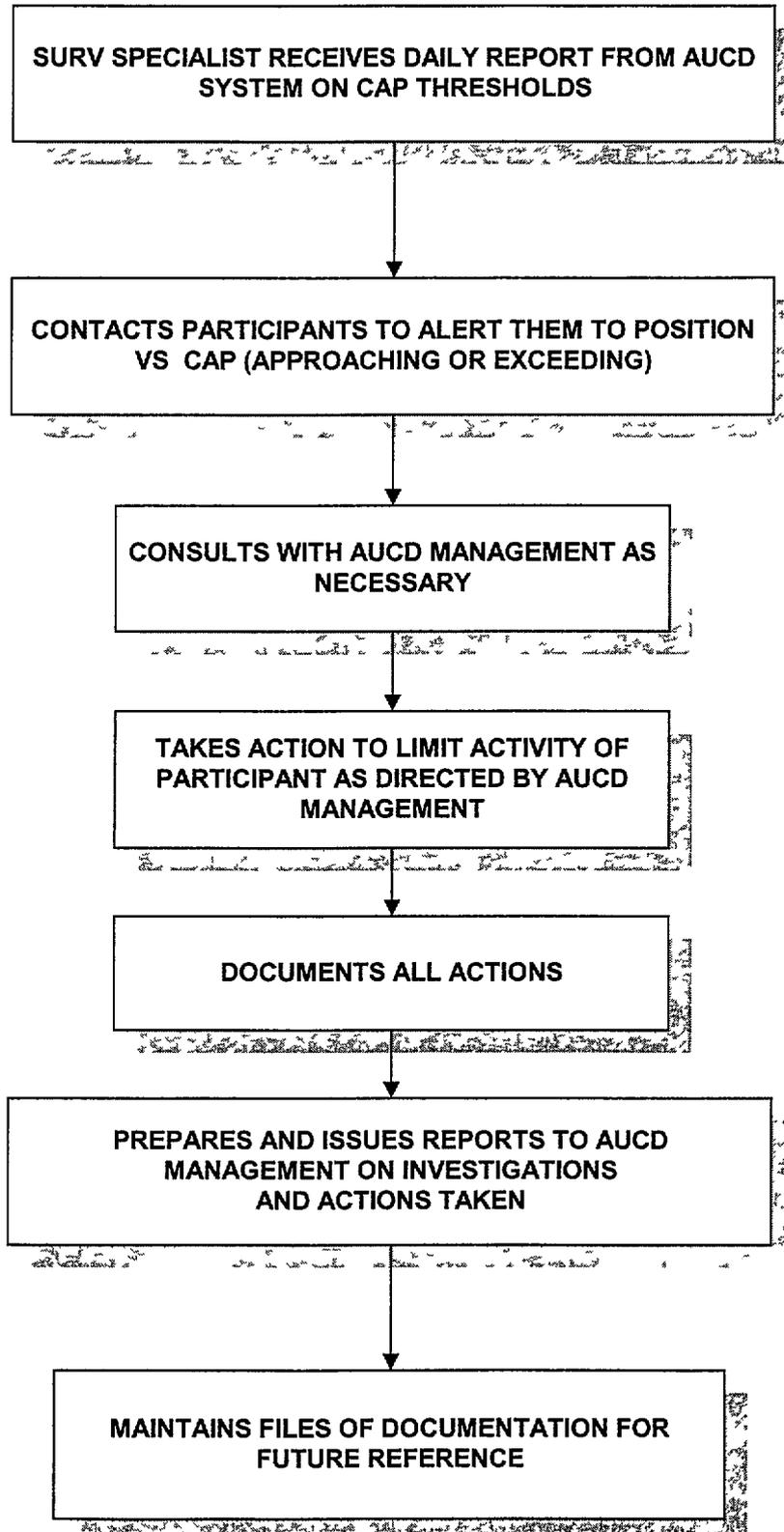
**ALL UKRAINIAN CLEARING DEPOSITORY (AUCD)
COMPLIANCE (CM)**



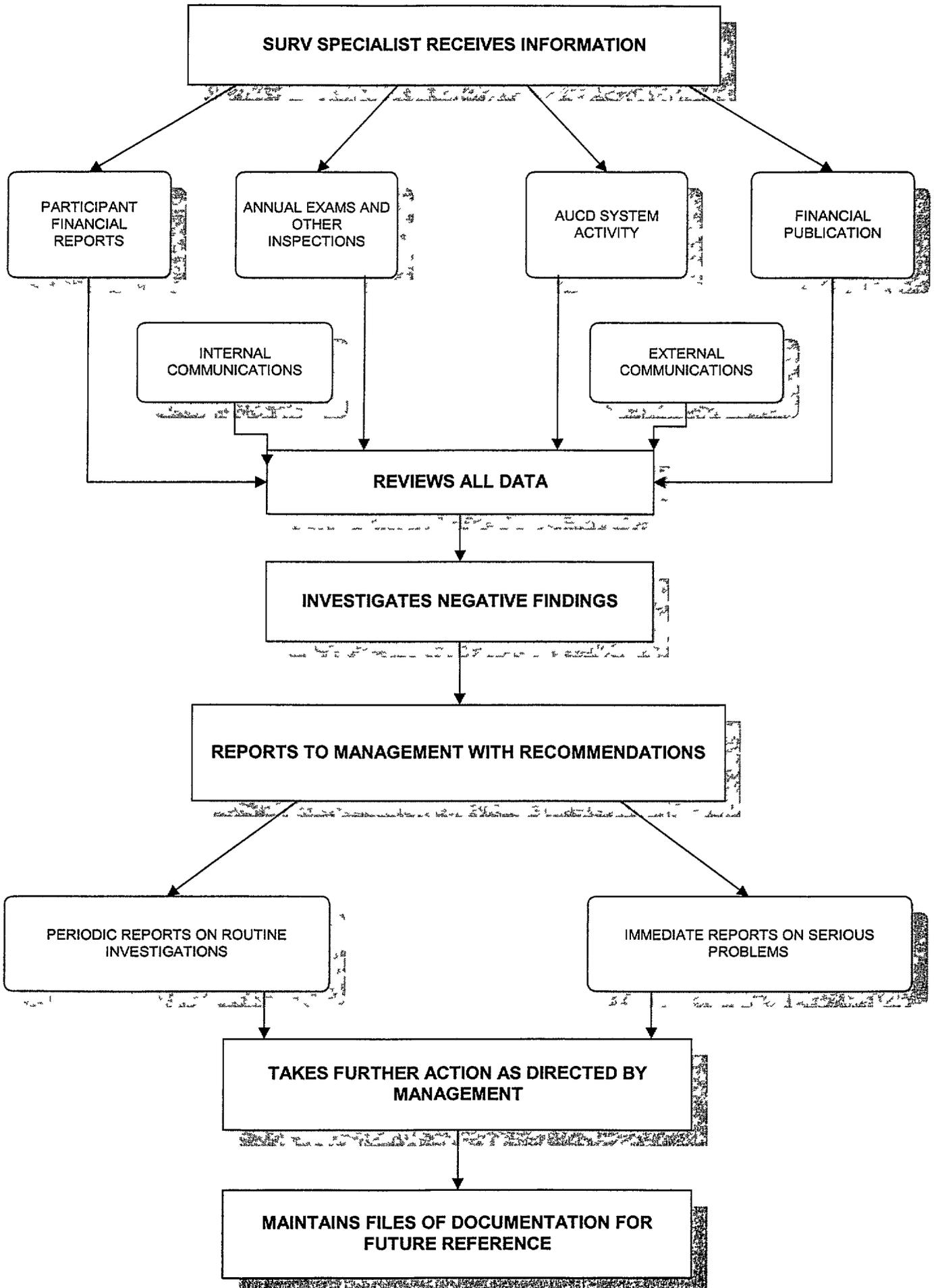
ALL UKRAINE CLEARING DEPOSITORY (AUCD) SURVEILLANCE (SURV) - APPLICATION REVIEW



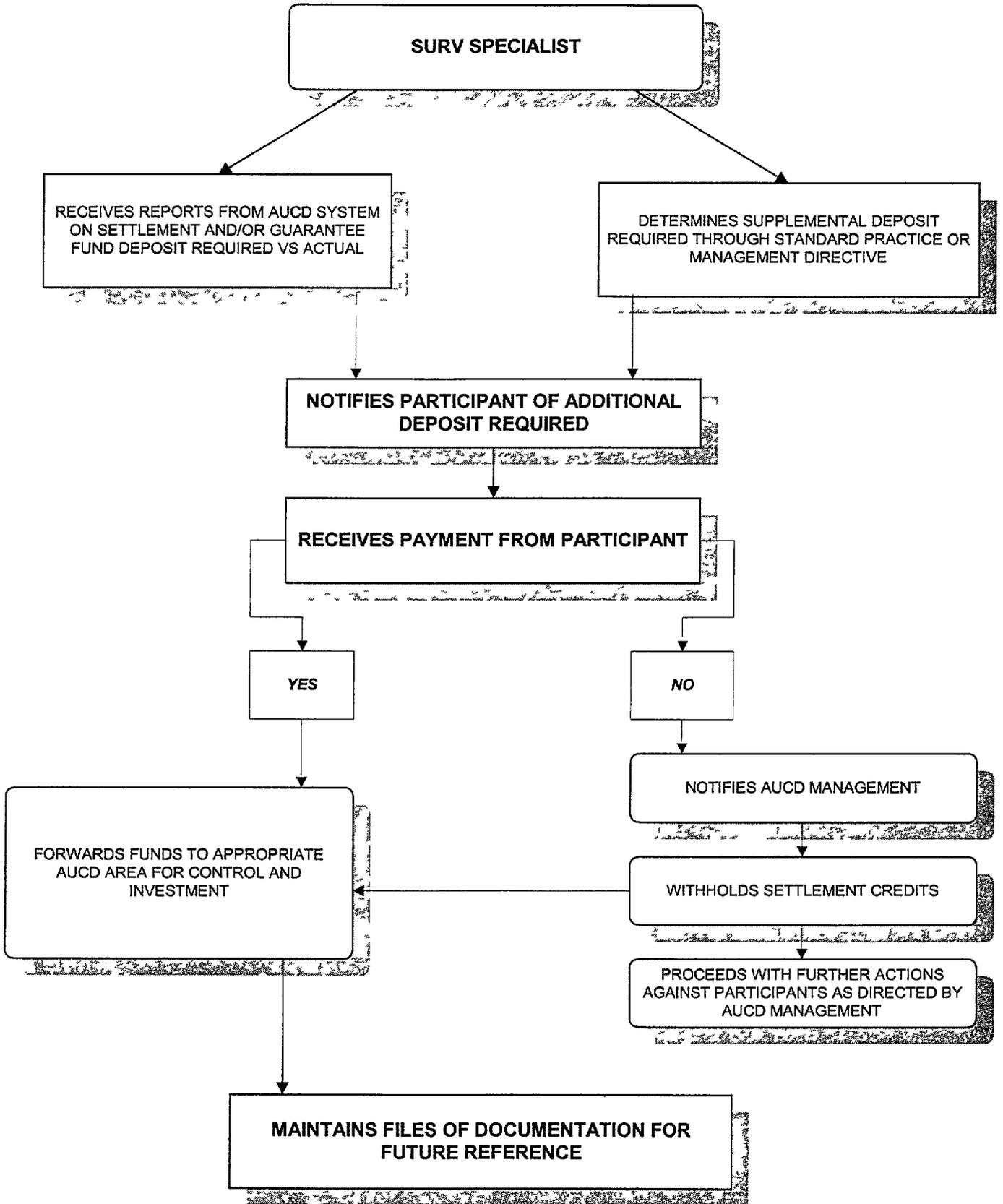
**ALL UKRAINIAN CLEARING DEPOSITORY (AUCD)
SURVEILLANCE (SURV) - SETTLEMENT CAP MONITORING**



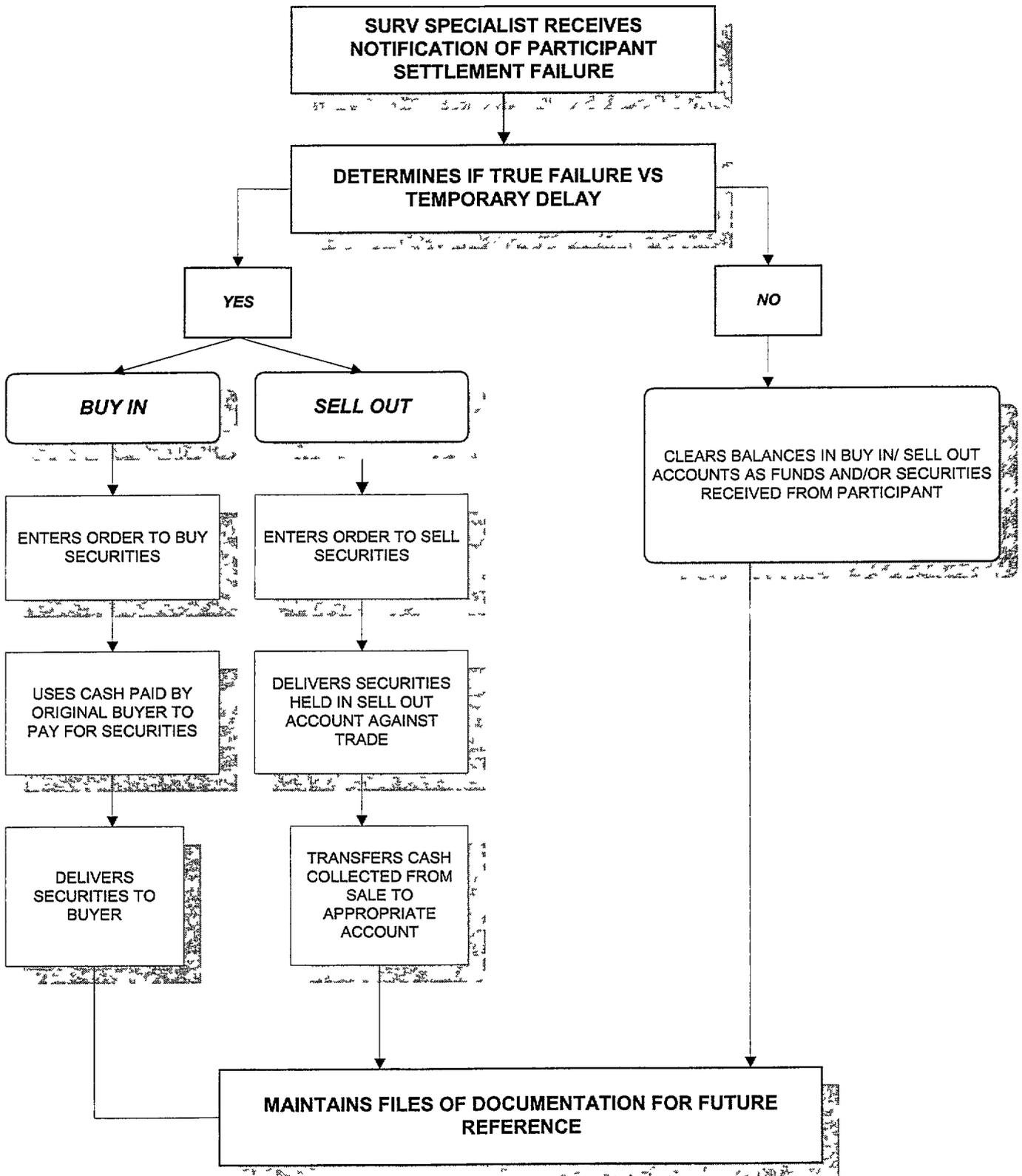
**ALL UKRAINIAN CLEARING DEPOSITORY (AUCD)
SURVEILLANCE (SURV) - ONGOING PARTICIPANT MONITORING**



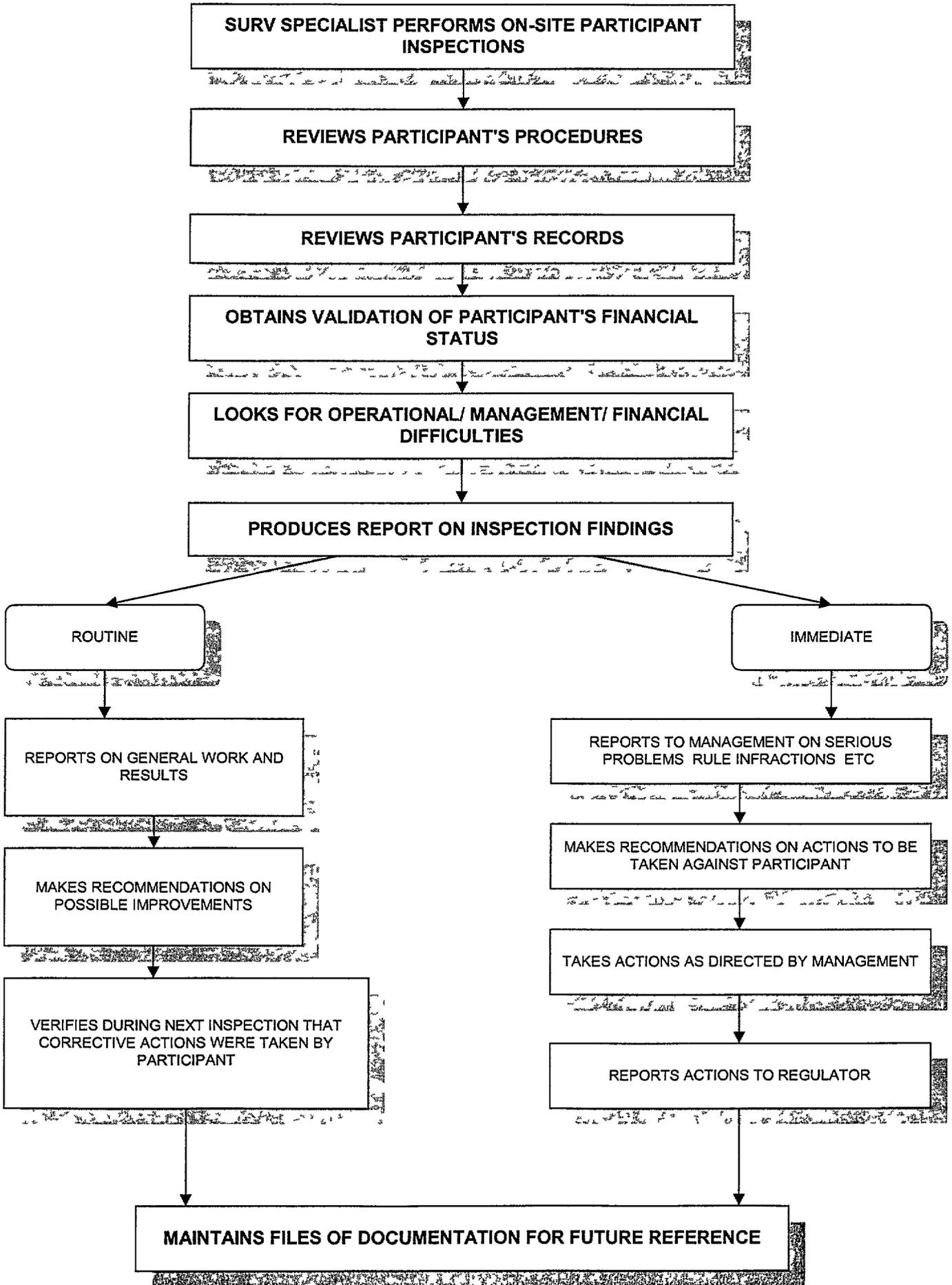
**ALL UKRAINIAN CLEARING DEPOSITORY (AUCD)
SURVEILLANCE (SURV) - SETTLEMENT/GUARANTEE FUND**



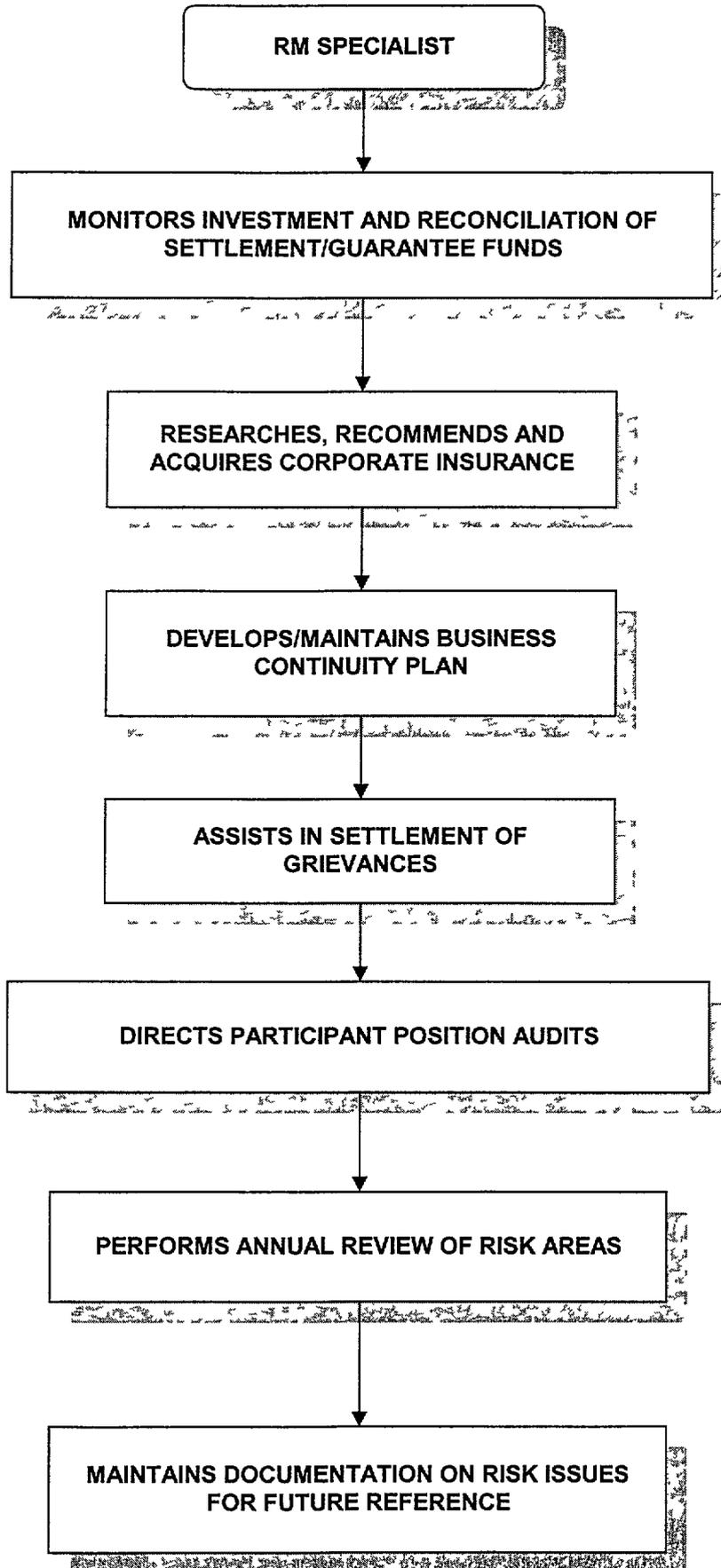
**ALL UKRAINIAN CLEARING DEPOSITORY (AUCD)
SURVEILLANCE (SURV) - BUY IN/ SELL OUT**



**ALL UKRAINIAN CLEARING DEPOSITORY (AUCD)
SURVEILLANCE (SURV) - ANNUAL INSPECTIONS**



**ALL UKRAINIAN CLEARING DEPOSITORY (AUCD)
RISK MANAGEMENT (RM)**



**ALL UKRAINIAN CLEARING DEPOSITORY (AUCD)
INTERNAL AUDIT (IA)**

